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SMITHSONIAN INSTITUTION

Fiscal Year 1983

Justification of Estimates of Appropriations
To the Office of Management and Budget



ADMINISTRATIVELY CONFIDENTIAL

(Information not to be released until after the President's
Budget is submitted to the Congress in January 1982).

September 1981

File
FY1983 Submission
to OMB
OPB Chron

October 9, 1981

Honorable David A. Stockman
Director
Office of Management and Budget
Washington, D. C. 20503

Dear Mr. Stockman:

As required by Office of Management and Budget letter of September 29, 1981, enclosed are revised tables based on the substantially lowered budget authority and outlay ceilings provided to the Smithsonian Institution. Table 1 replaces the "Summary of Funding" located on page 15 of the FY 1983 budget submission. Table 2 "Reduced Levels Decision Package" substitutes for pages 17 and 18 in the budget.

It should be noted that the revised budget authority ceiling is some \$27 million below that provided to the Institution on which the September submission was based. At the reduced level, it will still be necessary for the Institution to meet scheduled pay increases and relatively uncontrollable utility and rent bills and other inflationary cost increases. Thus decision packages for these needs must still be ranked high in our request.

The September FY 1983 budget request includes a decision package that seeks restoration of a large OPB workyear reduction made during the previous fiscal year. If that reduction is not restored, the Smithsonian will not be able to carry out Congressionally authorized programs and functions. Most severely affected are programs concerned with security, management of the collections (including special inventory work), and buildings and facilities maintenance.

The latest workyear reductions transmitted in the October 2, 1981 letter will require even more drastic cutbacks in public service and other Smithsonian programs. With over 40 percent of our positions designated for security guards, building repair and custodial personnel, we are already contemplating indefinite elimination of summer hours. The museums will not be open from 9:30 p.m. to 9:00 p.m. as they have been. Any further workyear reduction will force, at a minimum, drastic reductions in hours or scheduled museum closings throughout the Institution. Therefore, as noted in our letter of October 6, 1981, this request seeks restoration of the latest workyear reductions in addition to those proposed in the September FY 1983 request.

JYellin:lra:10-9-81

cc: Secretary's Files, Secretary's RF, OPB Subject, OPB Chron
Messrs. Hughes and Jameson

Plans for the Museum Support Center have been in progress since FY 1975 when President Ford signed Public Law 94-95 authorizing the Regents of the Smithsonian to prepare plans for museum support facilities. The Center will offer critically needed space for long-term storage of the collections in properly controlled environmental conditions, with adjacent office and laboratory facilities for conservation and study. With funds appropriated in FY 1980 and in FY 1981, construction of the Center is proceeding on schedule toward a January 1983 completion date. In order to operate this facility, an additional 99 positions and \$3.9 million are required for basic security, buildings and grounds maintenance, utilities, and to allow for the occupancy of the National Museum of Natural History, the National Museum of American History, and the Conservation Analytical Laboratory. Without the additional positions and dollars, it will be necessary to curtail or defer occupancy of the building. Given the already serious workyear reduction, it is not feasible to reprogram workyears from elsewhere in the Institution to cover Support Center requirements.

An additional decision package is included in the ranking for restoration of a cut required in the second FY 1982 budget amendment that would affect all of our museums. This cut eliminated our FY 1982 request to increase resources for contractual services for repair and maintenance of Smithsonian facilities.

The order of the remaining decision packages follows that of the September submission except for construction which is divided into two packages. It is important to stress that the Smithsonian's earlier FY 1983 budget request fully took into account the need for budgetary constraint. That request represented the product of intensive management reviews that resulted in the decision to defer all program growth. Both the original and this request are classified as current services budgets. They are designed to meet the most basic needs of the Institution in the areas of security, care of our buildings and facilities, and care of the National Collections. For this reason, all of the decision packages submitted in the earlier request are resubmitted in this budget. We are convinced that the resources proposed are absolutely essential to the functioning of the Smithsonian and that they are needed to prevent deterioration of the National Collections and Smithsonian buildings and facilities.

Sincerely,

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Phillip S. Hughes
Acting Secretary

Enclosures

SMITHSONIAN INSTITUTION
1983 Budget
Summary of Ranking

Table 1
October 9, 1981

(In thousands of dollars)

Ranking Numbers	Package Description			Decision Package Amounts			Cumulative Amounts		
	Type	Level	Comments	BA	Outlays	FIP Work- Years	BA	Outlays	FIP Work- Years
1.	<u>All Appropriations</u>	15% Reduction	Elimination/Reductions In all programs	-20,622	-20,622		116,864	120,205	
2.	<u>All Appropriations</u>	10% Reduction	Elimination/Reductions In various programs	-13,748	-13,748		123,738	127,079	
3.	<u>All Appropriations except Restoration and Renovation of Buildings</u>	5% Reduction	Elimination/Reductions In various programs	-6,874	-6,874		130,612	133,953	
4.	Salaries and Expenses	Current Services	Workyear Restoration	-	-	310	126,836	126,419	3,466
5.	Salaries and Expenses	Current Services	Scheduled pay increases, utilities and rent increases	4,140	4,025	-	130,976	130,444	3,466
6.	Salaries and Expenses	Current Services	Inflation	1,700	1,653	-	132,676	132,097	3,466
7.	Salaries and Expenses	Partial Base Restoration	Institutional Buildings and Facilities Management	350	330	-	133,026	132,427	3,466
8.	Salaries and Expenses	Current Services	Museum Support Center- related costs	3,905	3,797	99	136,931	136,224	3,565
9.	Construction I	Current Services	Restoration and Renovation of Buildings; Construction, National Zoological Park	12,382	11,648	-	<u>149,313*</u>	147,872	3,565
10.	Salaries and Expenses	Current Services	Security	2,814	2,736	48	152,127	150,608	3,613
11.	Salaries and Expenses	Current Services	Buildings and Facilities Management	1,345	1,308	-	153,472	151,916	3,613
12.	Salaries and Expenses	Current Services	Automation	1,080	1,050	-	154,552	152,966	3,613
13.	Salaries and Expenses	Current Services	Collections Management	431	419	-	154,983	153,385	3,613
14.	Salaries and Expenses	Current Services	Exhibitions support replacement	315	306	-	155,298	153,691	3,613
15.	Construction II	Current Services	R&R; Construction, NZP	3,309	3,142	-	158,607	156,833	3,613

* OMB Revised Target



Table 2

Reduced Levels Decision Package

The following table details the required reductions at the three levels by appropriation account: (\$ million)

Items	Reductions at		
	5%	10%	15%
1. Salaries and Expenses:			
a) Curtailment/elimination of certain programs and general program support	2.2	7.1	13.0
b) Eliminate grants made under the National Museum Act	0.8	0.8	0.8
c) Close museums and the National Zoological Park to the public two days per week	<u>0.8</u>	<u>0.8</u>	<u>0.8</u>
Subtotal, Salaries and Expenses	3.8	8.7	14.6
2. Construction: Restoration and Renovation of Buildings -- Reduction	—	2.0	3.0
3. Construction: Quadrangle Planning	1.0	1.0	1.0
4. Special Foreign Currency Program: Elimination	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>
Totals	6.8	13.7	20.6

SMITHSONIAN INSTITUTION
Fiscal Year 1983 Appropriations Request

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SMITHSONIAN INSTITUTION
SUMMARY AND HIGHLIGHTS OF THE FY 1983 BUDGET

The accompanying materials that detail the Smithsonian Institution's proposed FY 1983 budget include requests in the format of decision packages for the Salaries and Expenses, Construction (National Zoological Park and Restoration and Renovation of Buildings), Quadrangle Construction, and the Special Foreign Currency Program appropriation accounts. A ranking sheet that represents the Institution's priorities and an explanation of the ranking are provided also. The Quadrangle Construction request, which involves one-time funding, and the Special Foreign Currency Program, whose resource request is expressed in excess foreign currencies, are not competitively ranked against other accounts. Accompanying information is presented on the Institution's nonappropriated Trust fund accounts.

Budget Formulation Process

The Smithsonian's FY 1983 base budget submission was developed from the lowest practicable organizational level upward with the active participation of all managers. The nonappropriated Trust fund budget was developed simultaneously and in coordination with the Federal budget. (The Institution's FY 1981 and FY 1982 nonappropriated Trust fund budget and projections for FY 1983 through FY 1987 accompany this document.) Following guidance from the Secretary that outlined his views on the Institution's budget priorities and starting with program areas of emphasis and financial projections for FY 1983 as they appear in the Five-Year Prospectus FY 1982 - FY 1986, each organization prepared its own Salaries and Expenses budget. There are approximately 60 organizational entities (museums, bureaus, or offices) that receive an annual allocation of funds on the basis of which managers must make significant decisions about the scope and the distribution of work to be performed.

The next step involved the preparation of consolidated Salaries and Expenses decision packages by each Assistant Secretary (Science, History and Art, Public Service, Museum Programs, and Administration). The consolidated decision packages reflect critical review and analysis and express the most important areas of emphasis at this management level.

The development of the Restoration and Renovation of Buildings (R&R) account proceeded simultaneously with the Salaries and Expenses review process. The Five-Year Prospectus FY 1982 - FY 1986, also provided the starting point for formulating the FY 1983 R&R budget request. The Office of Facilities Services distributed to the bureaus a listing and description of all R&R needs that had been identified and scheduled for their facilities for the next five or more years. The Office of Facilities Services and appropriate staff members then met individually with each bureau to review all identified projects, to add newly identified needs and to establish tentative priorities for FY 1983. Subsequently, each Assistant Secretary reviewed the recommendations of the bureaus that report to him, and established a consolidated priorities listing of recommended FY 1983 projects.

The integration of the Salaries and Expenses, Restoration and Renovation of Buildings and National Zoological Park Construction decision packages and the ranking of these decision packages were accomplished by the Executive Committee whose members include the Under Secretary, the Assistant Secretaries, the Treasurer, and the Executive Assistant to the Secretary. Following the principles stated in the initial guidance provided by the Secretary, the Executive Committee made decisions on priorities among the functional areas (these are described in the "Overview" for the Salaries and Expenses appropriation) that would be emphasized, specific items to be included in the construction request, and the ranking of the decision packages.

The final steps in the process consisted of review and final approval of the proposed FY 1983 budget by the Under Secretary and the Secretary. The Executive Committee of the Board of Regents has reviewed the proposed FY 1983 Federal budget, the FY 1982 nonappropriated Trust fund budget, and the FY 1983 nonappropriated Trust fund projection. Review of these budgets by the full Board of Regents is scheduled for September 14, 1981.

FY 1983 Proposed Budget

The following table shows the proposed Salaries and Expenses, Construction, and Special Foreign Currency appropriation accounts from the reduction levels through the current program level.

	FY 1983 Budget Request					
	FY 1982 Appropriation Estimates	Reduced Levels			Current Services Level	Current Program Level
Appropriation		85%	90%	95%		
Salaries and Expenses	135,086	126,486	131,786	133,786	150,816	150,816
Construction <u>/1</u>	15,650	6,350	8,850	11,250	15,691	52,191
Special Foreign Currency Program	5,500	-	-	3,400	4,500	4,500
Total	156,236	132,836	140,636	148,436	171,007	207,507

/1 Includes Restoration and Renovation of Buildings, National Zoological Park, and Quadrangle Appropriation Accounts.

The Institution's FY 1983 budget request is a stringent one; it contains no frills. The budget represents the product of intensive management reviews that resulted in the decision to defer programmatic growth taking into account the economic realities facing our nation. Our request is fully supportive of the President's goals and objectives.

Specifically, in the Salaries and Expenses (S&E) appropriation, there are ten decision packages, including a "reduction levels" package that describes the serious consequences of cuts in all appropriation accounts. The other nine S&E packages are classified at the current services level. The proposed resources in these packages would enable the Institution to carry out approved programs that were mandated by the Congress through the restoration of workyears that were removed by OMB subsequent to the FY 1982 budgetary process; to meet the statutory requirements of within-grade increases, of the merit pay provisions of the Civil Service Reform Act, and of the annualization of the anticipated FY 1982 pay raise; to cover the higher costs to the Institution of utilities and rent; and to help offset the effects of inflation in the expenses portion of the salaries and expenses budget consistent with economic assumptions supplied by the Office of Management and Budget. Funds are sought also to continue to meet the non-recurring equipment costs of the Museum Support Center (MSC). Moreover, because the MSC is scheduled for beneficial occupancy in January 1983, the major portions of staff and other operating requirements of the Center are requested.

Resources proposed in the remaining five packages are needed to provide adequate security for the National Collections which consist of more than 78 million art objects, natural history specimens and artifacts and for the approximately 27 million visitors each year to the Smithsonian museums and the National Zoological Park. There is strong emphasis also on paying needed attention to the basic maintenance of the Smithsonian physical plant which consists of 12 historic and monumental museum and gallery buildings in Washington, D.C., and New York City and other facilities elsewhere. These facilities house research and collections management activities and a wide range of exhibitions in the fields of science, history, technology, and art. Recognizing the need to hold down requests for additional staffing, the Institution is proposing a modest investment in automated systems that will result in increased productivity of existing staff as well as in improved services.

Requests for additional staffing are confined to two purposes (in addition to the proposal for workyear restoration previously noted). These include essential operating and program support personnel for the Museum Support Center for which an additional 99 full-time permanent workyears are required for such basic needs as security, mechanical systems repair, buildings and ground maintenance, health care, and the provision of a core administrative and programmatic staff. Through a rigorous internal review in which the need for each Museum Support Center position was thoroughly examined, original projections of 123 new personnel were reduced to the 99 proposed in this budget.

The only other purpose for which additional staffing is sought is for security. With OMB and Congressional support during the past several years the Institution has been redressing its critical shortage of uniformed guards on a phased basis. This year's request for 42 additional guards seeks to move ahead in a major way with this effort, coupling it with a proposal for a further increment toward the development of a proprietary security system.

With resources sought in the Restoration and Renovation portion of the construction request, progress is planned in repairing building facades, roofs and terraces of various historic and monumental buildings; upgrading, including planning and installation, of fire detection and suppression systems; providing improved access for the disabled and the correction of conditions that could be hazardous to the safety and security of the visiting public, staff and the collections; repairing and improving utility systems in several museums and collections storage buildings, including heating, ventilating and air conditioning systems and plumbing and electrical systems (these improvements would promote energy efficiency); making improvements in support of programmatic objectives at the Smithsonian's outlying facilities; and making general repairs and improvements that are required for a variety of purposes. The Zoo portion of this request will be used for the planning of one of the last major projects under the Master Plan -- the Olmsted Walk Exhibits which are a series of small exhibits that will extend from the Connecticut Avenue entranceway throughout the Park. Zoo funds are sought also for further development of the Front Royal Conservation and Research Center with the construction of a hospital, quarantine and primate facilities. The main function of the Conservation and Research Center is the breeding of rare and endangered species.

Construction monies are requested for the Quadrangle project whose main theme is international peace through the promotion of intercultural understanding. The proposed resources will be used, in conjunction with an equal share of nonappropriated Trust funds, to construct new facilities for a center for Eastern Art in association with the Freer Gallery of Art, and a permanent home for the Museum of African Art. Space also has been provided for a conference center for seminars and discussions on matters of intercultural understanding including those held by Woodrow Wilson International Center for Scholars and for public service and educational activities of the Institution which are now located in inadequate quarters. These activities include the Smithsonian Institution Traveling Exhibition Service and the Resident and National Associates programs for which the Quadrangle furnishes appropriate classrooms and a small auditorium.

Finally, the Special Foreign Currency decision package includes funds to continue a program of grants to United States universities, museums and other institutions of higher learning for field research and professional training; for a second United States contribution to the international effort organized through UNESCO to restore and preserve the Indus civilization city of Moenjodaro in Pakistan; and for a fourth installment to the forward-funded reserve in support of future programs of the American Institute of Indian Studies.

Nonappropriated Trust Funds

Overview

In addition to Federal appropriations, the Institution has two major sources of nonappropriated funding. These are the Smithsonian Trust funds from a variety of sources and Federal agency grants and contracts. Overall, between FY 1981 and FY 1987, nonappropriated Trust funds are expected to comprise an average of approximately 43 percent of gross operating revenues, and an average of approximately 18 percent of net operating revenues. The distinction between net and gross revenues is important in that net revenues represent the funds that are available to the Institution after the expenses of auxiliary and bureau activities are deducted. It should be borne in mind that nonappropriated Trust fund projections of income are heavily dependent upon forecasts of general economic conditions, and are, therefore, subject to a substantial degree of uncertainty.

The accompanying tables display the sources (Table 1) and the application (Table 2) of all operating funds projected to be available to the Institution from FY 1981 - FY 1987 following the format in the Institution's Five-Year Prospectus which will be transmitted to the Office of Management and Budget during September. In addition, a summary table is provided showing the sources and application of funds for the budget year (Table 3). (The proposed budgets have been reviewed by the Executive Committee of the Board of Regents; however, they are subject to approval by the full Board of Regents which is scheduled to meet on September 14, 1981.)

Proposed FY 1983 Nonappropriated Trust Fund Budget

For FY 1983, the Institution is projecting gross operating revenues of \$290.3 million of which \$150.8 million constitutes the requested Federal appropriation, \$11.1 million is the projected pay supplemental requirement, and \$128.4 million represents the gross total of all nonappropriated sources. In terms of net operating income, a total of \$200.9 million is projected to be available to the Institution in FY 1983, of which an amount of \$39.0 million is expected to be derived from nonappropriated sources. All monies coming to the Institution are dedicated to the same broad objectives of increasing and diffusing knowledge. There are, however, important differences in specific uses and in restrictions imposed on these funds. The following sections address the nonappropriated Trust fund budget by type of fund.

Unrestricted (General and Special Purpose) Funds

For FY 1983, a net amount of \$15.1 million in unrestricted Trust funds is expected to be realized for program and administrative purposes. The unrestricted funds include those generated from interest on endowments and current fund investments, concessions such as food services, parking royalties, sales of Smithsonian products, including records and books, the Resident and National Associates programs including Smithsonian magazine, and the museum shops. They also include unrestricted gifts and bequests of funds. The availability of these funds helps to reduce the need for additional Federal appropriations.

For FY 1983, these funds are expected to be used as follows (in general, consistent with uses in FY 1981 and FY 1982 and in the projections for FY 1984 - FY 1987):

1) An allotment (centrally administered) of \$2.5 million to be used for acquisitions for the collections and scholarly and educational programs.^{/1} Of this amount, \$1.3 million is available for purchase of major objects of importance to the collections. An additional \$600 thousand is designated for scholarly projects that do not lend themselves to planned Federal funding, including unanticipated research opportunities such as meteorite falls. The remaining \$600 thousand is allocated to carry out innovative educational projects designed to reach large segments of the public.

2) An allotment of \$1.2 million to fund the Institution's centrally administered Fellowship Program, Regents fellowships and the Fellowship and Visiting Scholars Program of the Smithsonian Astrophysical Observatory and Radiation Biology Laboratory. These activities were funded with appropriated funds prior to FY 1979.

3) Operating allotments totaling \$2.9 million to the Cooper-Hewitt Museum, the Folklife unit, the Office of Telecommunications and the Visitors Information and Associates Reception Center and other small but important projects of other bureaus. These allotments also include a continuing \$125 thousand allotment for an equal employment opportunity Cooperative Education Program, a new Minority Intern Program and other affirmative action efforts.

^{/1} This program was instituted in FY 1978.

4) An amount of \$2.5 million for the Institution's administrative and technical support costs not recovered from overhead assessed against grants and contracts administered by the Smithsonian or from administrative fees charged to other Trust funded activities. /2

5) Transfer to Plant funds of \$1.5 million for the Quadrangle project (in addition to the approximately \$4.5 million transfers between FY 1978 - FY 1982).

6) Annual transfer of \$2.0 million to the Institution's unrestricted endowment and other transfers totaling approximately \$400 thousand for fluid research awards, Smithsonian Society awards, and revenue sharing (offset in part by a portion of National Air and Space Museum theater proceeds which are transferred into the Institution's general unrestricted fund).

7) A net amount of \$2.1 million is expected to be realized by the bureaus in special purpose funds and used for research, exhibitions, education and other purposes. These funds are generated from interest earned on the Institution's short-term investments, net proceeds of bureau activities, of which the National Air and Space Museum theater is the most prominent example, and other miscellaneous revenues.

Restricted Funds

Restricted income is expected to total \$5.6 million in FY 1983 and is derived primarily from investment income (endowment earnings and interest on current funds), gifts and grants for specific purposes, and from revenue-generating activities of the Freer Gallery of Art and the Archives of American Art. The larger part of restricted endowment investment income is dedicated to the Freer Gallery of Art and the Fort Pierce, Florida, Oceanographic Bureau for basic research purposes. The remaining restricted income provides support for specific research, exhibitions, and education projects for a wide range of units.

Federal Grants and Contracts

Grants and contracts awarded to the Smithsonian by government agencies and departments are expected to total \$18.3 million in FY 1983, an estimated increase of \$2.7 million over FY 1982. These grants and contracts are provided to the Smithsonian to support specific types of research, educational and other projects which the Institution can undertake as a result of its expertise or its ability to respond quickly to certain kinds of needs. Virtually all of these grants and contracts are anticipated for research conducted by the science bureaus of the Institution, mainly at the Smithsonian Astrophysical Observatory which has three approved programs, Infrared Telescope, Lyman-Alpha Coronagraph and X-ray flight experiment, on the space shuttle for the National Aeronautics and Space Administration.

/2 Unrestricted Trust funds are allocated to the administrative and support units to provide an appropriate balance between Federal appropriations and Trust funds, reflecting the services they provide.

SMITHSONIAN INSTITUTION
SOURCES OF OPERATING FUNDS
FY 1981 PROJECTED THROUGH FY 1987

(\$000)

Table 1

SOURCE OF OPERATING FUNDS	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987
<u>Federal Salaries and Expenses</u>	122,478	135,086	150,816	165,877	174,204	185,613	199,106
.Plus cumulative effect of legislated pay raises	-	4,400	11,100	18,400	26,100	33,700	41,200
Subtotal	122,478	139,486	161,916	184,277	200,304	219,313	240,306
<u>Nonappropriated Trust Funds</u>							
<u>Unrestricted General</u>							
.Investments	3,050	2,840	2,825	2,875	2,925	2,975	3,025
.Gifts	25	50	50	50	50	50	50
.Auxiliary Activities	82,472	89,625	97,124	104,359	111,659	117,517	126,348
.Miscellaneous	25	50	50	50	50	50	50
Subtotal	85,572	92,565	100,049	107,334	114,684	120,592	129,473
<u>Unrestricted Special Purpose</u>							
.Investments	559	550	575	585	600	610	625
.Gifts	100	60	60	60	60	60	60
.Bureau Activities	2,908	2,794	2,880	3,000	3,050	3,100	3,150
.Miscellaneous	866	880	911	925	950	975	985
Subtotal	4,433	4,284	4,426	4,570	4,660	4,745	4,820
<u>Restricted</u>							
.Investments	2,500	2,600	2,600	2,625	2,650	2,675	2,700
.Gifts, Grants and Contracts	2,850	2,500	2,200	2,200	2,200	2,200	2,200
.Miscellaneous	683	847	830	850	875	900	925
Subtotal	6,033	5,947	5,630	5,675	5,725	5,775	5,825
<u>Federal Grants and Contracts</u>	15,117	15,613	18,293	18,001	21,456	22,640	21,790
Gross Income	233,633	257,895	290,314	319,857	346,829	373,065	402,214
Less Expenses of Auxiliary and Bureau Activities	(74,152)	(83,578)	(89,366)	(96,754)	(102,925)	(109,932)	(117,574)
Net Funds Provided	159,481	174,317	200,948	223,103	243,904	263,133	284,640

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1981 PROJECTED THROUGH FY 1987

(\$000)

Table 2 (1)

APPLICATION OF OPERATING FUNDS	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987
<u>Science</u>							
.Federal Salaries and Expenses	43,017	45,896	46,751	50,840	53,020	55,354	57,650
.Unrestricted General							
-Program and Administrative*	484	252	259	235	241	249	256
-Auxiliary Activities	-	-	-	-	-	-	-
.Unrestricted Special Purpose							
-Bureau Activities	1,372	1,508	1,643	1,757	1,844	1,936	2,030
-All Other	1,339	1,193	1,167	1,141	1,172	1,224	1,263
.Restricted	2,262	1,716	1,546	1,473	1,522	1,573	1,630
.Federal Grants and Contracts	14,488	15,388	18,158	17,926	21,381	22,565	21,715
Subtotal	62,962	65,953	69,524	73,372	79,180	82,901	84,544
<u>History and Art</u>							
.Federal Salaries and Expenses	19,861	21,154	21,685	24,273	25,517	26,808	29,406
.Unrestricted General							
-Program and Administrative	688	637	621	627	633	639	646
-Auxiliary Activities	-	-	-	-	-	-	-
.Unrestricted Special Purpose							
-Bureau Activities	692	542	592	626	653	679	707
-All Other	696	798	741	781	810	840	896
.Restricted	3,297	4,259	3,446	3,392	3,524	3,391	3,535
.Federal Grants and Contracts	142	110	85	25	25	25	25
Subtotal	25,376	27,500	27,170	29,724	31,162	32,382	35,215
<u>Public Service</u>							
.Federal Salaries and Expenses	2,564	2,763	2,783	3,063	3,144	3,221	3,276
.Unrestricted General							
-Program and Administrative	734	777	902	943	988	1,037	1,077
-Auxiliary Activities	10,038	11,112	10,910	11,286	11,305	11,501	11,973
.Unrestricted Special Purpose							
-Bureau Activities	-	-	-	-	-	-	-
-All Other	3	1	-	-	-	-	-
.Restricted	134	30	10	110	125	125	125
.Federal Grants and Contracts	5	5	-	-	-	-	-
Subtotal	13,478	14,688	14,605	15,402	15,562	15,884	16,451
*Net of SAO Overhead Recovery. Gross expenses may be found in the Science chapter of the Five-Year Prospectus.							

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1981 PROJECTED THROUGH FY 1987

(\$000)

Table 2 (2)

APPLICATION OF OPERATING FUNDS	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987
<u>Museum Programs</u>							
•Federal Salaries and Expenses	9,189	9,985	10,775	13,237	13,700	14,203	14,562
•Unrestricted General							
-Program and Administrative	382	303	407	363	381	409	427
-Auxiliary Activities	1,119	1,163	1,245	1,312	1,383	1,459	1,540
•Unrestricted Special Purpose							
-Bureau Activities	47	43	40	43	47	51	55
-All Other	6	2	1	1	1	1	1
•Restricted	408	365	36	7	7	8	8
•Federal Grants and Contracts	31	-	-	-	-	-	-
Subtotal	11,182	11,861	12,504	14,963	15,519	16,131	16,593
<u>Special Programs</u>							
•Federal Salaries and Expenses	5,823	8,967	12,882	12,508	10,875	10,532	10,832
•Unrestricted General							
-Program and Administrative	597	640	645	656	664	670	677
-Auxiliary Activities	-	-	-	-	-	-	-
•Unrestricted Special Purpose							
-Bureau Activities	3	5	10	10	10	10	10
-All Other	3,047	3,688	4,017	3,785	3,820	3,855	3,890
•Restricted	96	91	137	185	166	207	208
•Federal Grants and Contracts	337	110	50	50	50	50	50
Subtotal	9,903	13,501	17,741	17,194	15,585	15,324	15,667
<u>Associates Programs</u>							
•Federal Salaries and Expenses	-	-	-	-	-	-	-
•Unrestricted General							
-Program and Administrative	315	324	337	357	378	400	424
-Auxiliary Activities	44,463	49,586	54,589	58,782	63,844	69,605	75,716
•Unrestricted Special Purpose							
-Bureau Activities	9	10	12	12	12	12	12
-All Other	23	29	32	32	32	32	32
•Restricted	13	40	-	-	-	-	-
•Federal Grants and Contracts	24	-	-	-	-	-	-
Subtotal	44,847	49,989	54,970	59,183	64,266	70,049	76,184

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1981 PROJECTED THROUGH FY 1987

Table 2 (3)

(\$000)							
APPLICATION OF OPERATING FUNDS	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987
<u>Business Management</u>							
.Federal Salaries and Expenses	-	-	-	-	-	-	-
.Unrestricted General							
-Program and Administrative	-	-	-	-	-	-	-
-Auxiliary Activities	16,285	19,495	20,200	22,765	23,655	24,495	25,335
.Unrestricted Special Purpose							
-Bureau Activities	-	-	-	-	-	-	-
-All Other	-	-	-	-	-	-	-
.Restricted	-	-	-	-	-	-	-
.Federal Grants and Contracts	-	-	-	-	-	-	-
Subtotal	16,285	19,495	20,200	22,765	23,655	24,495	25,335
<u>Administrative, Financial and Technical Services</u>							
.Federal Salaries and Expenses	8,776	9,705	9,982	10,461	10,705	10,822	10,977
.Unrestricted General							
-Program and Administrative*	380	605	1,022	1,193	1,361	1,548	1,759
-Auxiliary Activities	124	114	125	161	172	184	196
.Unrestricted Special Purpose							
-Bureau Activities	-	-	-	-	-	-	-
-All Other	183	152	130	127	129	131	133
.Restricted	203	79	110	75	76	77	78
.Federal Grants and Contracts	90	-	-	-	-	-	-
Subtotal	9,756	10,655	11,369	12,017	12,443	12,762	13,143
<u>Facilities Services</u>							
.Federal Salaries and Expenses	33,248	36,616	42,258	43,695	45,443	48,673	52,103
.Unrestricted General							
-Program and Administrative	943	1,046	1,162	1,231	1,304	1,383	1,464
-Auxiliary Activities	-	-	-	-	-	-	-
.Unrestricted Special Purpose							
-Bureau Activities	-	-	-	-	-	-	-
-All Other	57	15	15	15	15	15	15
.Restricted	-	-	-	-	-	-	-
.Federal Grants and Contracts	-	-	-	-	-	-	-
Subtotal	34,248	37,677	43,435	44,941	46,762	50,071	53,582
*Net of SI Overhead Recovery. Gross expenses may be found in the Administration chapter of the <u>Five-Year Prospectus</u> .							

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1981 PROJECTED THROUGH FY 1987

(\$000)

Table 2 (4)

APPLICATION OF OPERATING FUNDS	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987
<u>Inflation and Pay Requirements (Cumulative)</u>							
•Federal Salaries and Expenses	-	-	-	-	-	-	-
-Necessary Pay	-	-	2,000	4,100	6,300	8,700	11,300
-Inflation (Nonpay Purchases)*	-	-	1,700	3,700	5,500	7,300	9,000
-Supplemental	-	4,400	11,100	18,400	26,100	33,700	41,200
Subtotal	-	4,400	14,800	26,200	37,900	49,700	61,500
<u>Institutional Total</u>							
•Federal Salaries and Expenses	122,478	139,486	161,916	184,277	200,304	219,313	240,306
•Unrestricted General							
-Program and Administrative	4,523	4,584	5,355	5,605	5,950	6,335	6,730
-Auxiliary Activities	72,029	81,470	87,069	94,306	100,359	107,244	114,760
•Unrestricted Special Purpose							
-Bureau Activities	2,123	2,108	2,297	2,448	2,566	2,688	2,814
•-All Other	5,354	5,878	6,103	5,882	5,979	6,098	6,230
•Restricted	6,413	6,580	5,285	5,242	5,420	5,381	5,584
•Federal Grants and Contracts	15,117	15,613	18,293	18,001	21,456	22,640	21,790
Gross Funds Applied	228,037	255,719	286,318	315,761	342,034	369,699	398,214
Less Expenses of Auxiliary and Bureau Activities	(74,152)	(83,578)	(89,366)	(96,754)	(102,925)	(109,932)	(117,574)
<u>Net Funds Applied Before Transfers</u>							
•Federal Salaries and Expenses	122,478	139,486	161,916	184,277	200,304	219,313	240,306
•Unrestricted General	4,523	4,584	5,355	5,605	5,950	6,335	6,730
•Unrestricted Special Purpose	5,354	5,878	6,103	5,882	5,979	6,098	6,230
•Restricted	6,413	6,580	5,285	5,242	5,420	5,381	5,584
•Federal Grants and Contracts	15,117	15,613	18,293	18,001	21,456	22,640	21,790
Net Before Transfers	153,885	172,141	196,952	219,007	239,109	259,767	280,640
*Except cost increases for utilities and Museum Support Center equipment, which are contained in Facilities and Special Program sections respectively.							

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1981 PROJECTED THROUGH FY 1987

(\$000)

Table 2 (5)

APPLICATION OF OPERATING FUNDS	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987
<u>Transfers: (Out/(In))</u>							
•Current Funds Transfers (Internal)							
-Unrestricted General	4,577	3,490	4,104	4,150	4,195	4,255	4,300
-Unrestricted Special Purpose	(4,577)	(3,490)	(4,104)	(4,150)	(4,195)	(4,255)	(4,300)
•Current Funds to Plant Improvement							
-Unrestricted General	2,172	1,000	1,500	1,500	2,000	-	-
-Unrestricted Special Purpose	25	25	25	25	25	25	25
•Current Funds to Endowment							
-Unrestricted General	2,271	2,021	2,021	2,021	2,021	2,521	3,021
-Unrestricted Special Purpose	25	-	-	-	-	-	-
-Restricted	100	100	100	100	100	100	100
Total Transfers	4,593	3,146	3,646	3,646	4,146	2,646	3,146
<u>Net Changes In Fund Balances</u>							
Increase (Decrease)							
•Unrestricted General	-	-	-	(248)	159	237	662
•Unrestricted Special Purpose	1,483	(237)	105	365	285	189	51
•Restricted	(480)	(733)	245	333	205	294	141
•Federal Grants and Contracts	-	-	-	-	-	-	-
Subtotal	1,003	(970)	350	450	649	720	854
<u>Net Funds Applied</u>							
•Federal Salaries and Expenses	122,478	139,486	161,916	184,277	200,304	219,313	240,306
•Unrestricted General	13,543	11,095	12,980	13,028	14,325	13,348	14,713
•Unrestricted Special Purpose	2,310	2,176	2,129	2,122	2,094	2,057	2,006
•Restricted	6,033	5,947	5,630	5,675	5,725	5,775	5,825
•Federal Grants and Contracts	15,117	15,613	18,293	18,001	21,456	22,640	21,790
Net Funds Applied	159,481	174,317	200,948	223,103	243,904	263,133	284,640

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SMITHSONIAN INSTITUTION
Sources and Application of Funds
Estimate FY 1983
(Excluding Foreign Currency Program)

Table 3

OPERATING FUNDS

	Federal Approps.	Federal Gr. & Cont.	Unrest. Trust Funds General	Sp. Purp.	Restricted Trust Fds.	Total Op. Funds
<u>Funds Provided:</u>						
Federal Appropriation	150,816	-	-	-	-	150,816
Investments	-	-	2,825	575	2,600	6,000
Gifts, Grants & Contracts	-	18,293	50	60	2,200	20,603
Self-generated - Gross Rev.						
Auxiliary Activities	-	-	97,124	-	-	97,124
Bureau Activities	-	-	-	2,880	-	2,880
Other Miscellaneous	-	-	50	911	830	1,791
Total Income	150,816	18,293	100,049	4,426	5,630	279,214
Less Expenses - Self Generated						
Auxiliary Activities	-	-	(87,069)	-	-	(87,069)
Bureau Activities	-	-	-	(2,297)	-	(2,297)
Net Funds Provided	150,816	18,293	12,980	2,129	5,630	189,848
<u>Funds Applied: (Net)</u>						
Science	46,751	18,158	3,099	1,167	1,546	70,721
Less: SAO O/H Recovery	-	-	(2,840)	-	-	(2,840)
History & Art	21,685	85	621	741	3,446	26,578
Public Service	2,783	-	902	-	10	3,695
Museum Programs	10,775	-	407	1	36	11,219
Special Programs	12,882	50	645	4,017	137	17,731
Associates Pgms./Business Mgmt.	-	-	337	32	-	369
Administration - SI	13,682*	-	6,422	130	110	20,344
Less: SI O/H Recovery	-	-	(5,400)	-	-	(5,400)
Facilities Services	42,258	-	1,162	15	-	43,435
Total Funds Applied	150,816	18,293	5,355	6,103	5,285	185,852
<u>Transfers: Out (In)</u>						
Current Funds						
-Bureau Revenue Sharing	-	-	374	(374)	-	-
-NASM Theatre	-	-	(330)	330	-	-
-Fellowships	-	-	1,210	(1,210)	-	-
-Special Programs	-	-	2,675	(2,675)	-	-
-Other	-	-	175	(175)	-	-
Plant Funds	-	-	1,500	25	-	1,525
Endowment Funds	-	-	2,021	-	100	2,121
Total Transfers	-	-	7,625	(4,079)	100	3,646
<u>Change In Fund Balance</u>	-	-	-	105	245	350
<u>Ending Fund Balance</u>	-	101	5,001	11,246	3,606	19,954

*Includes an amount of \$3,700 thousand for necessary pay and inflation which has not been distributed by unit.

SMITHSONIAN INSTITUTION

1983 Budget

Summary of Ranking

(In thousands of dollars)

Ranking Numbers	Package Description			Decision Package Amounts			Cumulative Amounts		
	Type	Level	Comments	BA	Outlays	FTP	BA	Outlays	FTP
						Work- Years			Work- Years
1.	All Appropriations	15% Reduction	Elimination/Reductions in all programs	-7,800	-7,800	-35	132,836	143,882	3,168
2.	All Appropriations except Restoration and Renovation of of Buildings	10% Reduction	Elimination/Reductions in various programs	-7,800	-7,800	-22	140,636	151,682	3,203
3.	All Appropriations except Restoration and Renovation of Buildings	5% Reduction	Reductions in various programs	-7,800	-7,800	--	148,436	159,482	3,225
4.	Salaries and Expenses	Current Services	Workyear Restoration	--	--	241	135,086	133,861	3,466
5.	Salaries and Expenses	Current Services	Scheduled pay increases, utilities and rent increases	4,140	4,025	--	139,226	137,886	3,466
6.	Salaries and Expenses	Current Services	Inflation	1,700	1,653	--	140,926	139,539	3,466
7.	Salaries and Expenses	Current Services	Museum Support Center - related costs	3,905	3,797	99	144,831	143,336	3,565
8.	Construction	Current Services	Restoration and Renovation of Buildings; Construction, National Zoological Park	15,691	15,790	--	160,522	159,126	3,565
9.	Salaries and Expenses	Current Services	Security	2,814	2,736	48	163,336	161,862	3,613
10.	Salaries and Expenses	Current Services	Buildings and Facilities Management	1,345	1,308	--	164,681	163,170	3,613
11.	Salaries and Expenses	Current Services	Automation	1,080	1,050	--	165,761	164,220	3,613
12.	Salaries and Expenses	Current Services	Collections Management	431	419	--	166,192	164,639	3,613
13.	Salaries and Expenses	Current Services	Exhibitions support replacement	315	306	--	166,507	164,945	3,613

Rationale of the Decision Package Ranking

All of the 13 decision packages ranked in this year's budget submission are contained within the ceiling provided in the OMB allowance letter dated March 19, 1981. No new programs are proposed. Construction funding for the Quadrangle, a very high priority of the Institution, is included in this budget as a non-recurring item and as such is not ranked competitively with our ongoing programs. As in the past, the Special Foreign Currency Program is not included in this ranking. The following considerations were taken into account in establishing Institutional priorities for FY 1983.

The initial four decision packages include base reductions and their restoration. It is imperative to the goal of the Smithsonian "to increase and diffuse knowledge" that the programs cut as a result of the 15, 10, and 5 percent reductions be restored. The full effects of such reductions are explained in detail in the "reduction levels" decision package. Base reductions would jeopardize all of our programs, curtail public services, and produce inefficiencies in use of staff and in the conduct of our work.

Next in priority is the restoration of workyear reductions imposed on the Institution after the conclusion of the FY 1982 budget process. No additional monies are required. The restoration of workyears is necessary in order for the Smithsonian to carry out Congressionally mandated programs in all areas, particularly in security, collections management, and buildings and facilities management.

The following three decision packages are required to cover the costs of a) necessary pay (within-grade and merit pay increases and pay raise annualization), higher utilities and rent estimates; b) inflation in nonsalary areas, following Office of Management and Budget pricing policy guidelines; and c) operating and program staffing needs for the Museum Support Center as well as a further portion of the funds required for the purchase of storage equipment, laboratory equipment, and furnishings.

The Construction accounts, including Restoration and Renovation of Buildings and the National Zoological Park following its Master Plan, are very important to the Institution. The draft Five-Year Prospectus: FY 1983 - FY 1987, identifies a program of Restoration and Renovation work that will cost approximately \$60 million. The proposed FY 1983 plan undertakes a realistic portion of that work. The FY 1983 program for the Zoo is a modest one that will permit necessary maintenance and repair, the planning of one of the final projects included in the Master Plan, and further development of the Front Royal Conservation and Research Center.

The final five decision packages also are considered current services levels in that the proposed resources would permit only the correction of remedial security, buildings and facilities management, collections management, and exhibitions needs. The automation decision package represents an investment in modernizing Smithsonian systems which would result in near and long term efficiencies and curtail the need for additional staff, particularly in the Smithsonian Institution Libraries.

REDUCED LEVELS DECISION PACKAGE
Smithsonian Institution

In late July, after the Institution had completed its spring planning and budget formulation process, OMB requested that reduction levels of 15, 10 and 5 percent below the FY 1982 base be included in the FY 1983 budget justification. Because of the late date, the review followed by the Institution to derive the reduced levels was highly centralized in order to expedite the process.

The Smithsonian's FY 1982 base for all appropriations as represented in President Reagan's revised budget request totals \$156,236,000. Cuts of \$23,435,400; \$15,623,600; and \$7,811,800 respectively would be required at the 15, 10 and 5 percent levels. Reductions of this magnitude would have grave consequences to Smithsonian programs and would jeopardize the fulfillment of the basic Smithsonian mission "to increase and diffuse knowledge among men."

<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>		
			<u>Reductions at</u>		
			<u>5%</u>	<u>10%</u>	<u>15%</u>
Budget Authority (\$000)					
Salaries and Expenses	122,478	135,086	1,300	3,300	8,600
Restoration and Renovation of Buildings	7,539	7,500	-	-	2,500
Construction, National Zoological Park	3,290	7,150	3,400	5,800	5,800
Construction	5,000	1,000	1,000	1,000	1,000
Special Foreign Currency Program	3,650	5,500	2,100	5,500	5,500

The following table details the required reductions at the three levels by appropriation account: (\$ million)

Items	Reductions at		
	5%	10%	15%
1. Salaries and Expenses:			
a) Curtailment/elimination of certain programs and general program support	0.4	1.2	6.1
b) Eliminate grants made under the National Museum Act	--	0.8	0.8
c) Eliminate the Smithsonian Research Awards Program	0.3	0.3	0.3
d) Eliminate extended summer museum hours for Mall museums and the National Zoological Park	0.6	0.6	0.6
e) Close museums and the National Zoological Park to the public:			
one day per week	--	0.4	--
two days per week	--	--	0.8
Subtotal, Salaries and Expenses	1.3	3.3	8.6
2. Construction: Restoration and Renovation of Buildings -- Reduction	--	--	2.5
3. Construction: National Zoological Park -- Reduction	3.4	5.8	5.8
4. Construction: Quadrangle Planning	1.0	1.0	1.0
5. Special Foreign Currency Program: Reduction/elimination	2.1	5.5	5.5
Totals	7.8	15.6	23.4

The specific effects of such reductions by appropriation account are described in the following sections.

1. Salaries and Expenses Appropriation

The Institution's amended FY 1982 request for this appropriation totals \$135,086,000, approximately 70 percent of which is required for salaries and benefits. With a further \$14 million assigned to uncontrollable utilities, communications (including postage) and space rental charges, only \$31 million remains, or 23 percent for "discretionary" all other objects of expense.

Five categories of reductions are proposed. These consist of curtailment or elimination of programs and general program support, mainly, but not exclusively, in all nonsalary objects of expense; elimination of grants made under the National Museum Act; elimination of the Smithsonian Research Awards Program; elimination of extended summer museum hours at Mall museums and the National Zoological Park; and closing all museums and the National Zoological Park to the public one or two days per week.

At the 15 percent level, an amount of \$8.6 million would be cut in all reduction categories. All categories would be affected also, although at reduced amounts, at the 10 percent level where a total of \$3.3 million would be eliminated. An amount of \$1.3 million would be reduced at the 5 percent level covering three categories. The effects of the required cuts by category follow.

a) Curtailment/Elimination of Certain Programs and General Program Support

Across the board reductions to programs and programmatic support would damage work seriously in all functional categories. In many instances imbalances would result in the ratio of professional to support staff or in the amount of other objects support available to the professional staff, thus resulting in great inefficiencies in use of staff. This has been a problem which we have been working to correct for several years.

One function that would suffer is original research which is the foundation of all Smithsonian programs. A curtailed research program would erode the Institution's ability to meet its obligation to the general public and to the specialized audiences who depend on the data produced by our scholarly staff. The Smithsonian is a special national resource in that it performs continuous long-term research, such as studies on the collections to show environmental change, that cannot be done by universities or federal agencies. The Institution's influence in a number of fields of basic science is profound and its scholars are looked to by the scientific community to provide data that will fill existing gaps of knowledge and to pioneer new areas of scientific examination essential for advancement in applied areas of science. The scientific and industrial enterprises of this country rely heavily on major technological breakthroughs on fundamental knowledge gathered by organizations like the Smithsonian. Moreover, the results of Smithsonian research are used as the basis for the development of public exhibitions as well as the preparation of public education material and presentations. Specific examples of cuts to research programs at the reduced levels are:

-- Elimination of nine scientific positions and curtailment of programs in at least four major areas of astronomy at the Smithsonian Astrophysical Observatory, at a time when the nation's space science program requires fundamental data for its space shuttle and other high priority satellite programs. The full and effective utilization of the Multiple Mirror Telescope also would be delayed.

-- Elimination of two supporting positions that are critical in the collection of scientific and medical information on the endangered species present in the collection at the National Zoological Park. The ability to process data on the breeding of endangered species, an important element to the global efforts of zoos to maintain exotic animals, also will be greatly impaired.

-- Elimination of the algae section of the Oceanographic Sorting Center of the National Museum of Natural History/Museum of Man and curtailment of other sorting activities. This elimination and reduction would cause severe disruption to the United States oceanographic community which depends on the Sorting Center for processed specimens collected on all major international and national expeditions with United States participation. The production of the Handbook of North American Indians, a multi-volume series, would be extended several more years beyond the current schedule.

-- Elimination or curtailment of the International Environmental Science Program. The reduction would force the Institution to break several international agreements for scientific collaboration and could imperil the future access of scientists to several important nations. Unique long-term monitoring programs would be disrupted debasing the investment made to date and possibly negating research results already achieved.

-- Elimination of three positions at the Radiation Biology Laboratory forcing a severe cutback on all research, limiting research opportunities and publications. Research on such important long-term projects as measuring the effects of ultraviolet-B light and studies of plant productivity would be sharply reduced.

-- Deferral of a major program in aviation history at the National Air and Space Museum as a result of the elimination of two curatorial positions. A major effort to chronicle current development in space for future generations also would be cut back.

-- Elimination of the cataloguing of the Peter Juley and Son collection of 127,000 photographic negatives of American artists and their works dating from 1896 and all work on the sorting backlog for the library vertical file at the National Museum of American Art.

-- Suspension of an expanded publication program designed to interpret systematically the collections of the National Museum of American History through catalogues and scholarly works.

-- Halt to the development of an international bibliography of portraiture at the National Portrait Gallery.

-- Reduction of the editorial and operational capability of the Joseph Henry Papers project by twenty-five percent. This project involves the gathering of information and the preparation for publication of the manuscripts of Joseph Henry (1797 - 1878), the pioneer American physicist and the first Secretary of the Smithsonian.

-- Severe curtailment of services offered by the Smithsonian Institution Libraries. These would include elimination of the on-line services available to curators and administrators, thus depriving the staff of direct access to some 300 data bases; elimination of all telefacsimile transmission; deferral of the conversion of existing library catalogue records into the computer data base which in turn would delay indefinitely the conversion of records needed for the automated library system; severe cutbacks to the book and journal budget.

In the collections management function, perhaps the most significant result would be the need to extend the planned period of purchase of the collections storage equipment at the Museum Support Center. The purchase of the storage system has been scheduled to coincide with the movement of the collections from the National Museum of Natural History/Museum of Man and the National Museum of American History to the Center. Delays would subject these collections to further deterioration resulting from the inadequate storage conditions that gave rise to the need for the construction of the Museum Support Center. Other deleterious effects of reductions to the collections management function would be:

-- Cutbacks to the animal keeper staff and to the medical internship program at the National Zoological Park thus forcing a reduction in the size of the animal collection in order to ensure proper health care and maintenance of the animals.

-- Severe cutback in technicians and elimination of two curatorial positions at the National Museum of Natural History/Museum of Man, thus jeopardizing the Museum's ability to meet the current schedule for the move to the Museum Support Center.

-- Delay in efforts of the National Air and Space Museum to preserve poorly conserved photographs by transfer to an advanced video disc system.

-- Elimination of special funds in support of inventory activities at the Cooper-Hewitt Museum, thus prolonging the important effort to gain full control over these collections for the first time since they came into the Smithsonian. In addition, supplies and materials urgently needed to perform conservation measures on the collections could not be purchased, thus delaying responsible care of the collections.

-- Crippling of the effort to upgrade the present substandard storage conditions at the National Museum of American History, jeopardizing the safety and security of the Museum's collections housed in the Mall building. Also, progress toward the elimination of the hazardous situation due to the presence of nitrate negatives in the Photographic History collections would be deferred, leaving large portions of these collections inaccessible to scholars and the public. Further, a decrease in the curatorial staff would be necessary and this would curtail the day-to-day care of several major collections (notably the Warshaw Collection and the collection of cars and coaches).

-- Reduction by fourteen percent of capability to process new collections at the Archives of American Art, thus delaying necessary conservation of materials and access to the collections by scholars and students.

-- Reduction of conservation capability at the Freer Gallery of Art by one third, thus subjecting works of art to possible further deterioration.

-- Elimination of construction of specialized storage systems at the National Portrait Gallery, delaying secure and responsible care of these collections.

-- Decrease in the capability to create computerized catalogue records on new acquisitions at the National Museum of American Art.

-- Deferral by the Conservation Analytical Laboratory of its training program at the Museum Support Center. This program, which has been encouraged by the Congress, would serve a national need. Conservation work throughout the Institution also would be affected due to the need to cut back on the purchase of conservation supplies.

Most evident to the millions of visitors to Smithsonian museums would be a reduced exhibitions and performances program at most museums. Notable examples of the effects of the reductions would be:

-- Deferral of the exciting and comprehensive program of upgrading and updating the approximately 300,000 square feet of exhibits space at the National Museum of American History as well as elimination of the popular musical performances of the Smithsonian Institution Chamber Players and the Americana Series at the Museum. In addition, there would be a reduction in resources for emergency maintenance and upgrading of present exhibitions.

-- Reduction of the increasingly popular Folklife Festival from two weeks to one week along with a reduction in the number of performers and the events presented.

-- Elimination of three exhibitions a year along with accompanying catalogues and education programs at the National Museum of American Art. In addition, the art loan program for government offices would be eliminated.

-- Elimination of one of the two major exhibitions a year at the National Portrait Gallery with a commensurate cut to catalogue and education programs.

-- Elimination of all lectures, performances and workshops related to exhibitions at the Museum of African Art.

-- Elimination of one fourth of the exhibitions at the Cooper-Hewitt Museum, plus extended installation periods and delayed openings as a result of reduced staffing.

-- Elimination of all new exhibitions at the National Air and Space Museum.

-- Delay in the comprehensive program of the National Museum of Natural History/Museum of Man to update and refurbish its entire exhibits areas. Nearly half a million square feet are devoted to exhibitions at this Museum and many are outdated, not having been changed or upgraded for 20 years or longer.

-- Elimination of the specialized services provided by the Office of Exhibits Central to special Institutional exhibit programs such as the current "5,000 Years of Korean Art".

The effects of the reductions also would be felt by the public as a result of diminished education and public orientation efforts. In this functional category there would be:

-- Suspension by the National Air and Space Museum of its popular "Air and Space Magazine" and by the Chesapeake Bay Center of its public newsletter.

-- Sharp curtailment of the hours of the popular Zoolab, Birdlab and Herplab Centers at the National Zoological Park and of the Discovery Room and the Naturalist Center at the National Museum of Natural History/Museum of Man.

-- Suspension of all educational and public programs at the Smithsonian Astrophysical Observatory's Mt. Hopkins site.

-- Elimination of concerts, films, lectures, teachers' workshops, and school programs at the Renwick Gallery of the National Museum of American Art.

-- Elimination of printed materials for schools at the Museum of African Art.

-- Reduction by 80 percent of gallery leaflets in the Freer Gallery of Art.

-- Diminished ability to develop any new, innovative educational programs and to respond to public inquiries at the National Museum of American History. In addition, the Museum would no longer be able to provide overtime support for the wide variety of educational and cultural programs sponsored by other Smithsonian Institution organizations in the Mall building.

-- Elimination of a printed materials program for the visually impaired at the Cooper-Hewitt Museum.

-- Reduction of teacher workshops sponsored by the Office of Elementary and Secondary Education. This Office also would reduce the number of issues of Art to Zoo, a classroom newspaper distributed to over 15,000 schools and 60,000 teachers throughout the United States and Let's Go, a monthly newsletter used to inform teachers about the variety of Smithsonian services and to suggest ways of using museums as educational resources.

Collections acquisition programs of the History and Art museums would be cut back. Acquisitions are essential to the task of maintaining for the public a first rate collection of historic and artistic treasures worthy of the national museums of the United States. Any diminution of projected FY 1982 base acquisition funds totaling \$942 thousand would deal a severe blow to the collections and result in the loss to the public of art treasures which may never again be available.

Buildings and facilities management also would suffer under a reduction. Recognizing that there already are insufficient resources to maintain its buildings and facilities properly, the Institution has established remedial action to correct this situation as a high priority in the FY 1983 budget request. Failure to maintain Smithsonian buildings adequately would detract from the visiting public's pleasure and would jeopardize expensive and critical maintenance of structures and heating, ventilating and air conditioning systems. Also affected would be maintenance programs for research vehicles at outlying bureaus, including the Chesapeake Bay Center and the Tropical Research Institute.

In the Administration function, it would be necessary to reduce nonpersonnel funds that are available to meet the program support needs of approximately 20 organizations involved in managing the Institution and in providing a wide range of financial, personnel, property management, legal counsel, internal audit, management analysis, procurement, computer, public information, photographic, and travel services. A reduction in fund availability would curtail substantially the ability of personnel in these offices to serve the Institution, to plan for and monitor its activities, and to ensure its accountability in the public and private sectors. A number of negative results would materialize. Travel to field activities for program planning, oversight and problem solving would be cut. There would be fewer applications of labor saving word processing, copier and computer equipment and services at a time of reductions in staffing strength. Inadequate funding would fall heavily on our ability to print the "Welcome Brochure" visitor guide to the Institution. This leaflet, now available in large quantities to our museum goers, would be reduced in comprehensiveness or eliminated, since it would not make sense to produce fewer copies.

Further practical results of curtailed other objects class funding include a sharp reduction in computer time necessary for the production of financial statements and reports. These are needed by managers throughout the Institution to ensure fund and workyear control, and accountability. The Institution's efforts to copy on safety film and thus eliminate some 200,000 historically valuable but hazardous nitrate negatives would be hampered. Similarly, necessary supplies, materials and equipment required to produce photographs for research, the documentation of collections for inventory purposes, and public exhibitions would not be available. Opportunities for employee training in special skills for upward mobility purposes would be reduced. And finally, the Institution would lose its ability to purchase in economic quantities and stock centrally copy paper, stationery, envelopes, and forms used throughout the Institution.

b) Eliminate Grants Made Under the National Museum Act

The National Museum Act is a technical assistance program under which grants are made to enhance the quality of museum operations by supporting training in museum work, encouraging research and special studies for improvement of museum methods and practices and assisting in the dissemination of technical information to the museum profession. Since the program's inception in FY 1972, a total of 546 grants has been provided. The Act has enabled professional museum organizations and associations to offer improved technical services to museums and their employees and has contributed substantially to studies and research resulting in more effective museum performance, more advanced conservation practices and the training of conservators. Elimination of the program, which would be necessary at the 15 and 10 percent reduction levels, would deprive museums of this valuable support at a time when other support for them is being reduced. Since in the future museums will need even greater levels of expertise if they are to function under these reduced circumstances, loss of National Museum Act support for continued museological training and research will be felt severely.

c) Eliminate the Smithsonian Research Awards Program

The Research Awards Program was initiated in FY 1966 and functioned through FY 1979 to finance innovative fundamental research on a competitive basis among Smithsonian staff. No funds have been appropriated for the Program subsequent to FY 1979. An amount of \$300 thousand was included in the Institution's FY 1982 budget request to reestablish the Program because of its value in encouraging innovative, fundamental research. Because the Congress has been disinclined to provide funds for the program, it could be eliminated at the three reduction levels.

d) Eliminate Extended Summer Museum Hours for Mall Museums and the National Zoological Park

To accommodate heavy visitation during the spring/summer seasons, the Smithsonian traditionally has extended the hours of major Mall museums from 5:30 p.m. to 9:00 p.m. for the period April 1 through Labor Day. Almost two million visitors a year come during the evening period. Under the three reduction levels, the Institution would not be able to provide this additional service to the visiting public. Extended hours also would not be in effect at the National Zoological Park.

e) Close Museums and the National Zoological Park One or Two Days per Week

All the public facilities are now open every day of the year except Christmas Day. At the 15 percent reduction level, it would be necessary to close museums and the Zoo to the visiting public two days per week. At the 10 percent level, the museums and the Zoo would be closed one day per week.

Curtailement of museum hours would be undertaken very reluctantly and only under the most stringent of circumstances by the Institution which is strongly committed to providing complete service to the visiting public. In a budget reduction situation, however, it would be necessary to maintain balance in the resulting overall program of research, collections management and public education. Consequently some reduction in public service is likely.

2. Construction: Restoration and Renovation of Buildings

The Institution's amended FY 1982 request for this account totals \$7.5 million. The Restoration and Renovation of Buildings (R&R) request consists of repairs to facades, roofs and terraces of various historic and monumental buildings; the upgrading, including planning and installation, of fire detection and suppression systems; the provision of improved access for the disabled, and the correction of conditions that could be hazardous to the safety and security of the visiting public, staff and collections; repairs and improvements (many of an energy conservation nature) to utilities systems, including heating, ventilating and air conditioning systems and plumbing and electrical systems; improvements in support of programmatic objectives, mainly at the Smithsonian's outlying facilities; and general repairs and improvements that are required for a variety of purposes. The Five-Year Prospectus for FY 1983 - 1987 identifies R&R projects estimated to cost approximately \$60 million. The Institution is committed to the accomplishment of this work which will require an average annual funding level of \$12 million. At the 15 percent reduction level it only would be possible to proceed with a \$5 million program in FY 1983.

Under the \$5 million level, allocations essentially would be limited to selected phased projects already in progress. These would include the Arts and Industries roof and exterior renovation, the Renwick facade restoration, fire protection projects at the American History and Natural History buildings, and heating, ventilating and air conditioning renovations at the Freer and American Art/Portrait Gallery buildings.

All other work planned in the FY 1983 request covering 50 projects in various categories would be deferred. These projects include such work as facade repairs at the Cooper-Hewitt Museum, the Museum of American History, the Museum of Natural History and the Air and Space Museum buildings; fire protection projects at the Freer Gallery, Arts and Industries building, Chesapeake Bay Center for Environmental Studies and the Smithsonian Tropical Research Institute; and heating, ventilating and air conditioning/energy conservation projects at the Arts and Industries, Cooper-Hewitt, Hirshhorn, American History, Natural History and Air and Space buildings. Also deferred would be progress on installing the Smithsonian's proprietary security system and on eliminating asbestos hazards in various buildings. Finally, renovation work in direct support of exhibitions, research and collections management programs would not be undertaken. These consist of the design and construction of a laboratory addition at the Anacostia Neighborhood Museum, renovation of the Smithsonian Institution Libraries' space in the Natural History building, upgrading of an American History storage building at Suitland, and the phased program of safety improvements to the single lane access road at Mt. Hopkins, Arizona, site of the Multiple Mirror Telescope.

Aside from the obvious inflationary effect of deferring work that must be accomplished, failure to proceed with the identified program of work would have serious consequences. The structural integrity of several Smithsonian buildings would be threatened, and the collections would be endangered as a result of inadequate environmental control, fire protection and security systems.

3. Construction: National Zoological Park

The Zoo's FY 1982 construction request of \$7.1 million includes an amount of \$6.0 million for the first phase of the Aquatic Habitat Exhibits and a further \$1.1 million for restoration and renovation at the Rock Creek Zoo and the Front Royal Conservation and Research Center. The Institution has decided to defer construction of the Aquatic Habitat Exhibits until FY 1985 -1986. In its place, plans have been developed to move ahead with the final phases of the development of Rock Creek following the approved Master Plan and with the process of bringing the Front Royal Conservation and Research Center (CRC) up to standard as a breeding facility for endangered animals. The reductions proposed at the 15 and 10 percent levels would eliminate further construction work at both Zoo facilities.

Most severely hurt in FY 1983 would be the CRC program. The success of the Front Royal breeding and research programs since FY 1975 (when the 3,000 acre property was transferred from the Department of Agriculture where it had served as a beef cattle experiment station) has resulted in an animal population of over 350 rare and endangered animals comprising some 46 species. For FY 1983, the Institution is seeking monies to construct badly needed hospital and quarantine facilities, a Primate Facility and design funds for the final phase of the Small Mammal Facility. Delay in hospital construction would pose a very serious health problem for the animals. Without the hospital, the Zoo could not provide adequate treatment for the existing animal population or for its progeny, nor could it carry out an appropriate preventive medical program. With the loss of the proposed quarantine facility, the Zoo's avian research program would come to a virtual halt. A quarantine capability is necessary in order to introduce new stock which in turn is needed to control inbreeding and to foster the maintenance of viable family groups. The proposed Primate Facility is essential to foster research and breeding of endangered species in the primate family.

Also deferred under the 15 and 10 percent levels would be design money for the Olmsted Walk Exhibits, a series of small exhibits which would extend from the Rock Creek Zoo's Connecticut Avenue entrance throughout the Park. Envisioned in the Master Plan, these exhibits would greatly add to the enjoyment of millions of visitors. Because clearances will be required from the National Capital Planning Commission and the Commission of Fine Arts before construction can begin, planning funds are being sought two years prior to the construction request. Any delay in undertaking this project, which is expected to cost \$4 million would raise the total price of the project in light of inflationary pressures. With the National Zoological Park in the final stages of development into a model animal exhibition center worthy of its national responsibilities, it is important to complete the renovation work as promptly as possible.

4. Construction: Quadrangle Planning

An amount of \$1 million is included in the Institution's amended FY 1982 budget request. No further planning monies are being sought and as such this amount can be eliminated. Development of the Quadrangle remains a high Institutional priority. The full amount of the Federal construction share of \$36.5 million is included in the FY 1983 budget request as a non-recurring item.

5. Special Foreign Currency Appropriation

The Special Foreign Currency Program supports the Smithsonian mission "to increase and diffuse knowledge" by making grants to United States universities, museums, and other institutions of higher learning, including the Smithsonian itself, primarily for research and advanced professional training in fields of traditional Smithsonian competence. The FY 1982 base of \$5.5 million would finance 1) a continuing program of research grants to United States institutions; 2) a United States contribution to the international effort, organized through UNESCO, to restore and preserve the Indus civilization city of Moenjodaro in Pakistan; and 3) a third installment to the forward-funded reserve in support of future programs of the American Institute of Indian Studies. The entire program would be eliminated at the 15 and 10 percent reduction levels. At the 5 percent reduction level, a limited program of \$2.1 million would be possible.

The Smithsonian has a continuing tradition of supporting global research. The Special Foreign Currency Program has played a major role in this effort. Since its inception in 1966, grants have been made to over 200 United States institutions in 40 states and the District of Columbia to support approximately 700 individual projects in foreign countries. More than 1,300 publications have resulted from program grants.

Beginning in FY 1980, the Smithsonian commenced the establishment of a forward-funded reserve on behalf of the American Institute of Indian Studies (AIIS) - a consortium of 34 United States universities and colleges whose purpose it is to promote American scholarship on India. While the amount of Indian currency available to the United States Government is still large, it is a finite fund in inactive accounts. With inflation rates in India at a high level, it will probably disappear more quickly than has been anticipated. Since the end of "excess" currency status historically has happened suddenly, the Institution proposes to reserve funds for the AIIS to avoid a situation similar to the one which developed in Egypt.

The Institution's request for "excess" foreign currency funds for the Moenjodaro project would be made available to UNESCO as the United States contribution toward this international effort to salvage the ancient Harappan city located in present day Pakistan. This request is in accord with the Smithsonian's traditional interest in archeology and cultural history. It was the agent for conveying the final United States contribution to the international campaign to save the Nubian monuments--the successful effort to move the temples of Philae.

The premature demise of the Special Foreign Currency Program (under the 15 and 10 percent reduction levels) and its cutback (at the 5 percent level) would strike a serious blow to the global scholarly objectives to which the Smithsonian traditionally has been committed. These objectives, which can be carried out at no cost to the taxpayer, serve the interest of promoting international cultural understanding.

DECISION UNIT OVERVIEW

Smithsonian Institution

Salaries and Expenses: 33-0100-0-1-503

Long-range goal: To promote the increase and diffusion of knowledge through original historical, cultural and scientific research; to develop and properly care for the National Collections which represent invaluable resources for both study and display; to sponsor public programs including exhibitions, performances, publications and educational services; and to provide services to museums both in the United States and abroad.

Major objectives:

To accomplish the long-range goal of the Institution, the Smithsonian conducts a broad variety of programs, many in cooperation with other institutions, universities, and government agencies in the United States and abroad. These programs are described in terms of functional categories throughout this budget. These functional categories, in turn, represent the Institution's major objectives with overall resources detailed in terms of these categories. The functions include:

-- Collections management: The Smithsonian Institution has the legal responsibility (20 U.S.C. 59) to serve as the official repository of the National Collections which are estimated to contain more than 78 million art, technological and cultural history objects, and natural history specimens. The responsibility involves the acquisition, documentation and conservation of these materials along with detailed record keeping or cataloguing, regular inventorying, and storage in secure and atmospherically controlled environments. Objects and collections are loaned regularly to other institutions to assist students, scientists, and scholars, and for purposes of public education and enrichment.

-- Basic research: Increase of knowledge is accomplished through basic research. As an independent Federal establishment, the Smithsonian conducts a broad range of scientific and scholarly research, often in cooperation with other institutions, universities and government agencies. As a result of basic scientific research, fundamental data are assembled and published for use by planners and researchers in other organizations, both government and private. Historical research, through studies in technological development, art, cultural history, biography and folklife traditions, contributes to the knowledge about our heritage and about the nation's growth and development.

-- Exhibitions, including performances and festivals or celebrations: These presentations constitute one means of diffusing knowledge on a wide scale. In Washington D.C. and New York, Smithsonian museums, galleries, and the Zoological Park, which are visited by approximately 27 million people annually, devote exhibit space to showing significant objects, specimens, and animals from the permanent collections. In addition, temporary exhibitions with loan materials enhance these presentations, adding fresh concepts and ideas which further enrich visitor experiences. Through the Smithsonian Institution Traveling Exhibition Service, some 130 exhibitions are seen annually by more than five million visitors in more than 600 institutions across the country. Live performances,

festivals, celebrations, lectures and records are also enjoyed by millions of people in the Smithsonian museums as well as in institutions elsewhere and in private homes throughout the nation. Such programs are produced by the Division of Performing Arts, the National and Resident Associates Programs, the Folklife Unit and by the individual museums.

-- Education and Public Orientation: Perhaps the most important means of diffusing knowledge is through the education programs of the Institution. These programs offer enormous variety in content and form; they range from in-depth, scholarly symposia to activities for fun and enjoyment, and reach all ages from young children to senior citizens. They include classes and workshops, guided tours by trained docents and radio, television, and motion picture programs sponsored by the individual museums and by centralized offices including Fellowships and Grants, Symposia and Seminars, and Elementary and Secondary Education. A highly significant aspect of the education effort involves production each year of several hundred publications including museum catalogues, books, scholarly monographs, articles, papers, the Archives of American Art Journal, and Smithsonian magazine, which is now received by approximately 1.9 million Resident and National Associates. At any given time, there are likely to be two to three hundred visiting scholars, scientists and students working throughout the Institution in various collections, laboratories, and offices. The Smithsonian News Service now reaches an estimated 90 million readers of some 1,425 newspapers throughout the country. Art to Zoo, a publication for elementary and secondary school teachers, is sent to 15,000 schools in all states. Finally, as another educational endeavor, the Institution's Office of Museum Program activities offers assistance to museums across the country and abroad by conducting museum training courses, producing and distributing audio-visual programs on conservation principles and techniques, and through the National Museum Act by awarding grants for museum research and training.

-- Collections acquisition: The Smithsonian museums acquire works of art, artifacts, specimens and other objects in three ways: by collecting, by donation and by purchase. Collecting and donation are and will continue to be the major means for acquiring material for the collections. However, donations and even collecting for the most part, may not be the result of planned development. If the National Collections are to be fully representative, and if the Institution's research and exhibition programs are to thrive, the collections must grow by thoughtful design. To meet this responsibility and challenge, the Smithsonian seeks approximately \$900 thousand annually in Federal funds for five history and art museums to purchase a variety of relatively inexpensive works of art. To supplement this amount and to provide for the purchase of more expensive works, the Institution has provided an amount of \$1.0 million annually since FY 1978 of its nonappropriated Trust funds. Beginning in FY 1983, an amount of \$1.3 million will be provided for this purpose, funds permitting.

In order to carry out these functions, certain services, including facilities management, protection services and administration provide the required support. The Smithsonian has the responsibility for the maintenance, operation and protection of a large complex of buildings and other facilities centered and located mostly in Washington, D.C., but with important components elsewhere. The Institution also provides architectural and engineering services for major repairs, alterations, and improvements to the physical plant. The Smithsonian complex presently consists of 11 exhibition

buildings in Washington, D.C. and New York City in the fields of science, history, technology, and art; a zoological park, and an animal conservation and research center at Front Royal, Virginia; the Anacostia Neighborhood Museum, which performs research and exhibit activities in a low income area of the city of Washington in cooperation with the community; a preservation, storage, and air and spacecraft display facility at Suitland, Maryland which is also the site of the Museum Support Center now under construction; a conference center at Elkridge, Maryland; two natural preserves, in the Republic of Panama and on the Chesapeake Bay; an oceanographic research facility in Fort Pierce, Florida; astrophysical centers in Cambridge, Massachusetts, Mt. Hopkins, Arizona, and elsewhere; and supporting administrative, laboratory and storage areas.

Current Method of Accomplishing Work

A cooperative decentralization characterizes the structure and operation of the Smithsonian's museums and research bureaus. The research, collections management, exhibition, education and collections acquisition efforts are conducted largely by individual museums, galleries, the Zoo and laboratories. Education, exhibit and custodial staff, formerly located centrally, now are placed within the museums in accord with a policy that gives responsibility to directors for the management of their own programs and buildings. The Secretary and Under Secretary provide overall planning and policy guidance and monitor the effectiveness of Smithsonian operations. The role of the program assistant secretaries is to provide guidance and oversight to the various museums and programs within their areas of responsibility. Other specialized administrative and support units are managed centrally in order to promote efficiency and cost effectiveness. These include such components as general counsel, treasurer, public information, budget, accounting, personnel, equal employment opportunity, computer services, facilities services, design and construction, management analysis, printing and photographic services, contracting and supply, and travel services.

Alternatives:

The major alternative to the overall Smithsonian policy of cooperative decentralization would be recentralization of the major programmatic activities. Previous experience under this policy has made it clear that centralization would mean loss of the flexibility and creativity essential to provide the wide range of services the Institution offers.

In the administrative and support areas, an alternative approach to making greater use of outside professional and technical services has been rejected as a general overall policy because the present system works well. Other approaches have been found to result in loss of control over functions, increased costs or inconsistent conduct of operations throughout the Smithsonian. However, the Institution is conducting a comprehensive review of the use of outside services following the general guidance of OMB Circular A-76. Some additional use of such services can be expected to the extent that they will promote efficiency in terms of work accomplishment and cost, and will hold down the requirements for additional staff.

For exhibitions and performances, there may be several alternatives to substantial additional Federal funding for major new exhibitions. First, the Institution, as inflation grows, could mount increasingly smaller and less comprehensive shows, using available base funds. Or, the Institution could mount fewer and fewer exhibitions. Either alternative would serve to lessen the vitality of the museums, reduce research and educational endeavors and resulting publications, and decrease professional motivation and morale. Another alternative would be for the Institution to rely on private, principally corporate fund-raising efforts. However, the uncertainty of such outside financing defeats necessary long-range planning for exhibits development.

The only major alternative to the present method of performing research at the Smithsonian is the development of a highly centralized mechanism which would direct the work of each bureau and scientist by specific tasks. While this approach is successful in certain mission-oriented agencies, it would not readily apply to the Smithsonian which performs basic research. The collection of fundamental data from the Institution's collections or observations cannot be centrally directed, since the immediate objective of Smithsonian research is to add to man's knowledge regardless of immediate application. The present approach of managing Smithsonian science is important to mission-oriented agencies and industry which cannot devote the necessary resources for developing a basic research infrastructure. The major breakthroughs in the application of science are usually derived from years of intensive basic research, a key element that the Smithsonian provides to the nation.

Accomplishments:

A selection of specific accomplishments by functional category follows.

Research:

-- In April of 1979, Smithsonian Astrophysical Observatory scientists collaborating with colleagues of the University of Arizona used the Multiple Mirror Telescope to obtain observations which were to prove crucial in the discovery of the first gravitational lens, the phenomenon predicted by Einstein's theory of general relativity but never previously observed. This discovery has had a major effect on our understanding of the cosmos and was the subject of the cover story in "Scientific American" in November, 1980.

-- The Smithsonian Astrophysical Observatory (SAO) has developed several new cooperative scientific programs, both national and international. For example, an agreement was reached with the Ministry for Research and Technology of the Federal Republic of Germany to develop detectors for the German-built ROSAT satellite; a cooperative project was undertaken with Italy in an effort to orbit a "tethered satellite," a concept originally developed by two scientists at SAO; and a cooperative project was established with Marshall Space Flight Center on planning for the spaceflight of a hydrogen maser to conduct time synchronization and gravity wave experiments.

-- An important report by the "Astronomy Survey Committee" of the National Academy of Sciences has been released. Developed under the chairmanship of the Director of the Smithsonian Astrophysical Observatory, the report will have a significant role in determining the future of astronomy in the 1980s.

-- The 56th annual conference of the American Association of Zoological Parks and Aquariums (AAZPA) awarded the National Zoo the Edward H. Bean Award, the highest association award for captive propagation. The award was given in recognition of the Zoo's long-term propagation efforts of the golden lion tamarin.

-- The first animal nutrition laboratory in any U.S. zoo was established this past year at the National Zoological Park. Research efforts will lead to a better understanding of the nutritional requirements of exotic animals.

-- The National Zoological Park initiated several studies of artificial breeding on selected species concentrating on semen collection, evaluation, and storage in liquid oxygen. Progress made in this research is crucial to prevent extinction of endangered animals.

-- Research conducted by a scientist at the National Museum of Natural History/Museum of Man on giant worms growing near hot sulfide-rich springs in the Pacific Ocean revealed a unique new method for extraction of energy from the environment. Sulfide-reducing bacteria live within the body of the worm and use the chemical energy derived from the breaking of the sulfide bonds to power their life functions. The worm, which has no mouth or digestive tract, derives nourishment from the bacteria either by absorption of carbohydrates produced by the bacteria, or by digestion of dead bacteria, or perhaps by cropping of living bacteria. This is the first known instance of an organism deriving its energy from the earth's primeval energy reservoir originating at the time of formation of the solar system, rather than from the sun itself.

-- Research on the role which bees play in the pollination process has yielded new evidence potentially important to agriculture. A scientist from the National Museum of Natural History/Museum of Man has discovered that European honeybees may not be the best pollinator of all crops. Research on bee pollination of the giant sunflower, a commercially important plant, has shown the American bee to be superior to the European variety for efficient pollination.

-- Research at the Chesapeake Bay Center for Environmental Studies has led to better understanding of the control of mosquitos in salt water marshes. Findings have shown that cutting channels in the marsh area destroys mosquito breeding areas and allows for a suitable habitat for mosquito-eating fish. This method appears to have no significant adverse environmental consequences while it provides, at the same time, effective mosquito control.

-- Studies at the Smithsonian Tropical Research Institute are yielding important data on brown pelicans. The Republic of Panama appears to be a major nesting place for all pelicans which migrate

to North America. Better understanding of the ecology and behavior of these migratory birds is important since their populations were drastically reduced in the U.S. during the 1950s and 1960s due to agricultural pesticides.

-- Studies at the Smithsonian Tropical Research Institute indicate that rainfall in this region of Central America has decreased significantly over the last 40 years. It appears that there may be a correlation between this decrease in rainfall and the increase in the clearings of forest areas. Careful examination of this phenomena may aid in understanding the problem of increased carbon dioxide levels which may be effected by increased burning of fossil fuels and deforestation.

-- The Radiation Biology Laboratory has been devising a method for estimating the productivity of plants grown under different colors of radiation regardless of the light source. The result of this research indicates the most efficient type of light energy that may be applied in horticulture to obtain optimum growth of plants with added artificial lighting.

-- Studies have shown that salt marshes are stressful environments for plants because the presence of salt reduces their capacity to extract sufficient water from the soil to keep up with evaporation of water from leaves. Most salt marsh plants have very little water stored within their green tissues and during the day, they experience severe water stress. The Radiation Biology Laboratory has measured this stress in salt marsh plants along the Chesapeake Bay and found that they daily experience greater desiccation than corn growing in fields nearby. In fact, when corn plants desiccate to the same level that salt marsh species routinely experience, they are unable to continue to do photosynthesis and growth ceases. The adaptations, which salt marsh plants have evolved to permit them to continue to do photosynthesis and to grow when exposed to severe desiccation, are being studied in the hope that an understanding of these adaptations can be applied to improvement of crop plants.

-- All life depends on the growth of plants and animals for food. It is known that the ozone in the stratosphere limits the amount of damaging ultraviolet-B (UVB) that reaches the surface of the earth. The National Academy of Science "Panel Report 1979" has indicated the release of chlorofluoromethanes into the atmosphere acts to deplete ozone in the stratosphere. The loss of ozone will increase the amount of damaging ultraviolet-B that reaches the earth's surface. This increase in UVB can damage crops, kill fish, and cause skin cancer. The research program of the Radiation Biology Laboratory has been measuring changes in the ozone layer since 1975.

-- A monumental ten-volume edition of the holdings of the Archives of American Art was published. Titled "The Manuscript Collection of the Archives of American Art," it will serve as a fundamental resource for scholars of American art.

-- Twelve volumes of the Book-of-the-Month Club series on antiques (five during the past year) have been completed by the Cooper-Hewitt Museum. Three more volumes have been requested and are in the planning stages.

-- Volume IV of the Joseph Henry Papers was published as well as a special collection of readings -- A Scientist in American Life: Lectures and Essays of Joseph Henry. Since 1968, the editor and staff of the Joseph Henry Papers have been gathering information and preparing for publication the manuscripts of Joseph Henry -- the pioneer American physicist and the first Secretary of the Smithsonian Institution.

-- A major symposium on art in Germany since the 1930s was held at the National Museum of American Art in conjunction with the exhibition on Alfred Eisenstadt's photography. Two symposia, sponsored by the Archives of American Art also were held: "A Look at Arthur B. Davies and His World, 1900 - 1928" in Boston and "Other People's Mail: The State of Research in American Art History" in Washington, D.C.

-- The Division of Performing Arts performs specialized, systematic research in performing art forms such as popular entertainment (vaudeville, circus, carnival and other traveling shows), jazz, and Black American Culture to identify and locate performers and collections of materials and memorabilia. The results of this research form the basis for performances and recordings which explain the best examples of the art form, key departures, crucial factors, critical importance and major personages, influences and traditions.

Exhibitions and Performances:

-- The new major exhibit hall in the National Museum of Natural History/Museum of Man, the Thomas M. Evans Gallery, opened on July 14, 1981, with the show "5,000 Years of Korean Art." This exhibition has received praise from the critics and is immensely popular with the visiting public. Major exhibitions planned for this hall during the next year and a half include shows on "Hopi Kachina-Spirit of Life," "Deep Ocean Photography," "The Art and Culture of the Bering Sea Eskimo," and "Hawaii."

-- During the spring, the totally new Great Ape Facility opened at the National Zoo. This building, a 20,000 square foot structure which provides modern and larger interior and exterior homes for both orangutans and gorillas, is proving to be a favorite of Zoo visitors. The renovated Reptile and Small Mammal Houses are scheduled to open in the fall.

-- More than 46 million people have visited the National Air and Space Museum since July 4, 1976, with popular attention focused on the exhibit program. During FY 1981, this dynamic program continued with the completion of three major exhibits: "The Gallery of Jet Aviation," which covers the history, development and use of the jet engine since its inception in the mid-1930s; the "Balloons and Airships Gallery," which features the Double Eagle II, the first balloon to make a successful trans-Atlantic crossing; and "Flight and the Arts Gallery," where a collection of photo-realistic art is on display.

-- The exhibition, "Anna J. Cooper: A voice from the South," opened at the Anacostia Neighborhood Museum in February 1981. This show depicts the life and accomplishments of this innovative Black educator of the 19th century.

-- A major addition to the Smithsonian collection of recordings produced by the Division of Performing Arts in 1981 is the eight record album, "Classic Country Music." The New York Times, in praising this album, recommended that every recording library of American music have a copy of it.

-- The Smithsonian Institution Traveling Exhibition Service scheduled and toured exhibitions in over 600 locations throughout the United States and produced 35 publications to accompany these exhibits. Major new exhibits developed for circulation included "Renaissance of Islam: Art of the Mamluks" and "Quicksilver Galleons: Treasures from Guadalupe and Tolosa."

-- An important exhibition presented at the Hirshhorn Museum and Sculpture Garden, "The Avant-Garde in Russia, 1910-1930: New Perspectives," afforded visitors a unique opportunity to view works of art from this extraordinary, early-modern period of Russian art. The show attracted extensive coverage in the national press and enthusiastic response from visitors, many of whom also participated in the active program the Museum built around the exhibition including an opera, "Victory Over the Sun," concerts, lectures, a symposium, film series and a fashion show of costume designs by the artists.

-- At the Freer Gallery of Art, some 74 miniature paintings executed during the reign of the three "great" Mughal rulers of India (1542-1658) are being shown in the exhibition "The Imperial Image: Painting for the Mughal Court." A survey of richly painted manuscripts, this show marks the first time the full collection will have been shown.

-- Special exhibitions at the National Museum of American Art included "American Porcelain: New Expressions in an Ancient Art," "Cast and Recast: The Sculpture of Frederic Remington," and George Catlin: "The Artist and the American Indian." President Reagan personally visited the latter exhibition and was so impressed that he ordered the accompanying catalogue to give to President Anwar Sadat on his recent visit to the United States.

-- The Museum of African Art presented exhibitions on "Treasures of Ancient Nigeria - Legacy of 2,000 Years," "Traditional Costumes and Jewelry of Egypt" (in conjunction with the national symposium 'Egypt Today'), and "Art of the Masai," traditional clothing and body ornaments worn by the pastoral nomads of Kenya and Tanzania.

-- "Champions of American Sport" and "Benjamin West and His Students" were the two major exhibitions presented this year by the National Portrait Gallery, and plans were made to travel both shows to other museums in the country. "Champions" will go to the Chicago Historical Society and the American Museum of Natural History in New York. "Benjamin West" was shared with the Pennsylvania Academy of Fine Arts.

-- The National Museum of American History, currently engaged in a comprehensive updating of its exhibits galleries, nevertheless conducted an active exhibits program including the spectacular

"Clockwork Universe," a collection of German clocks and automata from 1550-1650; and shows on "Jefferson and Sciences," "The Changing American Farm," "American Red Cross," and "Images of American Labor."

-- The Hirshhorn Museum and Sculpture Garden will reopen its Sculpture Garden this summer after a major, three-year renovation program to make the Garden accessible to the disabled. The new design also provides for additional plantings and grass, improving the Garden's general appearance and rendering it a more attractive and comfortable place for all visitors.

-- "Gardens of Delight" capped this year's series of popular design exhibitions at the Cooper-Hewitt Museum in New York. Filling almost the entire Museum including the garden and the conservatory of the Carnegie Mansion, the exhibition consisted of architectural drawings, glass, ceramic, silver and other metals, textiles, laces, wallpaper, and jewelry -- all with floral designs or motifs -- as well as live horticultural displays. Said the New York Times in a rave review, "Delight (was) clearly the universal and unwavering theme."

Collections Management:

Inventory work at the National Museums of Natural History/Museum of Man, American History and the Cooper-Hewitt Museum is proceeding satisfactorily toward the scheduled completion date in June 1983. As of July 1981, at the National Museum of Natural History/Museum of Man 59 percent of the estimated total of the required inventory records (normally involving two or more specimens) have been created and 53 percent of the objects of the National Museum of American History, along with 74 percent of those at the Cooper-Hewitt Museum have been inventoried. Inventories of Natural History collections scheduled to be moved to the Museum Support Center are 53 percent complete.

-- Application of video disc technology at the National Air and Space Museum (NASM) has been tested successfully in connection with the Museum's program to convert the NASM photographic collection to video disc. This program will insure the protection of the collection and also permit its economical dissemination to research centers on a world-wide basis.

-- The Smithsonian Institution Libraries, presently involved in a comprehensive automation effort, replaced its card catalogue (for works catalogued after 1974) with a "computer output microform" catalogue.

-- Progress in archival programs of the Smithsonian Institution Archives continued at the National Museum of Natural History/Museum of Man, the National Museum of American History, the National Museum of American Art, and the Hirshhorn Museum, and archival programs were established at the Chesapeake Bay Center, the Fort Pierce Bureau, the National Air and Space Museum, the National Portrait Gallery and the Woodrow Wilson International Center for Scholars.

-- The Conservation Analytical Laboratory is investigating the effects of the museum environment on art objects and artifacts with studies in the generation of pollutants within the museum environment and the ways in which pollutants, air and moisture circulate in contained spaces.

Education and Public Orientation:

-- Again this year the Smithsonian Institution Press received recognition for a number of its publications. American Portrait Drawings and Benjamin West and His American Students, both National Portrait Gallery exhibit catalogues, were among the 33 winning entries in the Association of American University Presses annual book show, chosen from a total of 265 submissions. These same two publications won awards in the annual competition of the Washington Art Directors Club, along with the Hirshhorn catalogue, Directions. The National Zoological Park symposium book, Comparative Pathology of Zoo Animals, won a Blue Pencil first in the Federal Communicators annual show.

-- The Visitors Information and Associates Reception Center continues to offer a variety of services to the public. During FY 1981, telephone assistance was provided to over 300,000 callers, some 50,000 responses were developed by the Center's Public Inquiry Mail Service, and 350 Information Volunteers contributed 44 thousand hours of service staffing information desks in Mall museums and the Renwick Gallery seven days a week.

-- Approximately 2,500 teachers from across the country participated in programs offered by the Office of Elementary and Secondary Education. These programs provided practical ideas about instruction based on museum collections.

-- The Office of Telecommunications produced 52 half-hour Radio Smithsonian programs for national broadcast (distribution of which has been transferred to the National Public Radio satellite system) and 104 of the two and one-half minute Smithsonian Galaxy series, carried by 202 stations, reaching a potential weekly audience of 16 million.

-- Also under the guidance of the Office of Telecommunications, a film profile on the National Museum of American Art, "A Sense of Discovery" was completed and is now being made available for general distribution. The film was honored with a CINE Golden Eagle for excellence and an Emmy for cinematography from the National Academy of Television Arts and Sciences.

-- The Office of Museum Programs sponsored 23 programs through its Smithsonian workshop series on subjects of museological interest including such subjects as "Fundamentals of Museum Management," "Principles of Conservation," and "Preventive Care of Collections." Over 250 museum professionals from 36 states, the District of Columbia and four foreign countries, have attended workshops this year. The Office also distributed 800 audio-visual informational and training programs to museums and educational organizations.

-- The Institution's Native American Museum Training Program held workshops in Anchorage, Alaska, and Chicago, Illinois, sponsored 11 interns, and provided technical assistance to five Native American museums and cultural centers.

Collections Acquisitions:

-- Among the additions to the holdings of the Archives of American Art are the papers of Gertrude Vanderbilt Whitney, sculptor, founder of the Whitney Museum, and noted society figure; Howard and Jean Lipman, prominent collectors of contemporary sculpture; and two former museum directors, Mitchell Wilder, Amon Carter Museum of Western Art, and Thomas Carr Howe, California Palace of the Legion of Honor.

-- Among objects acquired by the National Museum of American History are the Dudgeon steam wagon - the earliest surviving self-propelled vehicle; Richard Nixon's inaugural parade overcoat; the Morgan collection of 19th century printing type - the best surviving collection of historical American type faces; and a Stradivarius violoncello, 1701.

-- The Hirshhorn Museum and Sculpture Garden acquired two paintings by major contemporary artists - "Waverly Place" by David Estes and "Painted on 21st street" by Helen Frankenthaler; a rare wooden sculpture, "Cylinder Decorated with Figure of Hina and Two Attendants" by Paul Gauguin; and the complete graphic works (191 etchings, drypoints and lithographs dating from 1917 to present) of Raphael Soyer given by the artist.

-- Significant acquisitions by the National Museum of American Art include the painting by Charles Willson Peale "Mrs. James Smith and Grandson;" an oil on canvas, "Snow Fields" by Rockwell Kent, and an oil on canvas, "Ryder's House" by Edward Hopper.

-- Additions to the Museum of African Art include a seated male royal ancestral figure from the Cameroons, a chief's throne from Zaire, and a standing female figure with a necklace, also from Zaire.

-- The Freer Gallery of Art acquired a rare Japanese illustrated Buddhist Sutra of the Heian period (879-1185), considered an "Important Cultural Property" by the Japanese Government and allowed to leave Japan only because the Freer Gallery was acquiring it.

Facilities Management, Protection Services, and Administration:

-- The third annual update of the Smithsonian's Five-Year Prospectus, covering the period FY 1982 - FY 1986, was issued in January 1981. This planning effort continues to serve as a useful process for focusing Institutional priorities, for sustaining action to realize objectives, and for providing a unified overview of our accomplishments and plans to interested persons and organizations.

-- A systems design and programming effort was begun to develop a data base management computer program for personnel, payroll, equal opportunity, and employee cost projection purposes. The new

system, to be fully operational in early calendar year 1983, will supplement a variety of uncoordinated systems and make it significantly easier to manage and update personnel data. Word processing equipment was applied extensively by the Office of Programming and Budget to all phases of the Federal and Trust fund budgets.

-- Performance appraisal and merit pay systems were designed, approved by the Office of Personnel Management, and implemented by the October 1981 deadline called for in the Civil Service Reform Act of 1978. The first two groups of cooperative education students under the Affirmative Action Program completed their work periods at the Institution. New Upward Mobility positions are being announced to create new career ladders for current employees. The Office of Protection Services contracted for a comprehensive study of the Institution's health services program. Based on the results of the study and on in-house evaluation, the program will be expanded to provide occupationally oriented health monitoring services.

-- During the past year, four new Accounting Service Units, each managed by an accounting technician, were established in various Smithsonian facilities, for a total of six throughout the Institution; these units, linked by computer terminal to the central Accounting Office, review and process travel, procurement, petty cash and other accounting documents, and also provide guidance and assistance to bureaus' administrative personnel on financial procedures.

-- The Office of Public Affairs consolidated and expanded the Smithsonian News Service, which provides feature stories on Smithsonian research in the sciences, the arts and history to newspapers across the country. Currently, 1,425 daily and weekly newspapers publish the Service's articles making the Service the largest of its kind in the United States with nearly 90 million readers -- or about 40 percent of all newspaper readers in the country. The articles are written by Smithsonian staff and distributed without charge in packages of four stories each month. Many of the stories also are published in magazines and used in other educational ways.

-- Planning, analysis, and the first level of design have been completed for the installation of a new electronic security and fire alarm system that will be completely owned and operated by the Institution. A contract will be awarded in September 1981 for the first implementation phase, which will be accomplished at the new Museum Support Center. This phase will provide a prototype system that will be tested and then expanded over the next years to all Smithsonian facilities in the Washington metropolitan area.

-- Staff members of the Office of Plant Services (OPlantS) constructed a two-story, 2,800 square foot facility in the east court of the Natural History Building. This low-cost facility now provides valuable additional space for equipment storage and for several of the Office's workshops. Additional OPlantS' accomplishments include the modification of electrical systems which will result in reduced energy consumption; computerization of the scheduling system for the expanded preventive maintenance program for roofs; and improved maintenance of building insulation, which also contributes to energy conservation.

<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>1983</u> <u>Current</u> <u>Services</u>
Budget Authority (\$000)	122,478	135,086	150,816
Outlays (\$000)	120,740	133,861	149,155
Full-time equivalent employment (workyears):			
Full-time permanent	3,227 pos. (revised)	3,225	3,613
Total	3,636 pos. (revised)	3,525	4,014

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Budget Authority (\$000)	165,877	174,204	185,613	199,106
Outlays (\$000)	164,238	173,227	184,399	197,665

CURRENT SERVICES DECISION PACKAGE 1
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Workyear Deficiency. An increase of 241 full-time permanent (FTP) and 100 "other" workyears are requested to remedy the large discrepancy between the Smithsonian's FY 1982 Congressional position request (Full-time permanent - 3,466, "other" - 476) and Office of Management and Budget workyear ceilings (Full-time permanent - 3,225 workyears, "other" - 300 workyears). The workyear resources requested in this package will allow the Smithsonian to carry out Congressionally authorized programs for which the Institution is accountable. Workyear resources for Museum Support Center operating and program requirements and for security needs of the Institution are requested and justified in separate decision packages of this budget.

<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	122,478	135,086	-	135,086
Outlays (\$000)	120,740	133,861	-	133,861
Full-time equivalent employment (workyears):				
Full-time permanent	3,227 pos. (revised)	3,225	241	3,466
Total	3,636 pos. (revised)	3,525	341	3,866

Short-term objectives:

- To provide adequate security for Smithsonian visitors, staff and the National Collections.
- To provide proper care for the collections and to continue at the current level the Collections Management/Inventory Program currently in progress at the National Museum of Natural History/Museum of Man, National Museum of American History, Cooper-Hewitt Museum, and elsewhere in the Institution.
- To allow the proper maintenance of Smithsonian buildings and facilities.
- To continue current level research, exhibition, education, and other public service programs.
- To cover existing staff deficiencies affecting centralized administrative support for Smithsonian programs.

Impact on major objectives:

With resources proposed in this package the Smithsonian's workyear authority would increase from 3,525 (3,225, Full-time permanent; 300, "other") to 3,866 (3,466, Full-time permanent; 400, "other") and relieve staff deficiencies adversely affecting virtually all Smithsonian programs and functions.

Other information:

The fiscal year 1982 workyear authority provided subsequent to budgetary review by the Office of Management and Budget is allocated to approximately 60 discrete bureaus and offices following the largely decentralized structure of the Institution. As a result of the downward ceiling adjustments made in association with the workyear allocation, Smithsonian bureaus and offices are in a position of not being able to carry out Congressionally authorized programs and functions, most particularly those concerned with museum security, management of the collections (including special inventory work), buildings and facilities maintenance, and others which will result in short and long term inefficiencies and curtailed services to the public. The following chart shows the estimated actual full-time permanent and "other" workyears realized in fiscal year 1981 and the Congressionally authorized position ceiling and OMB workyear allocations for fiscal year 1982. For FY 1981, it is projected that the Smithsonian will realize a workyear obligation in excess of the FY 1982 OMB allocation by approximately one percent for full-time permanent employees despite the fact that the Institution has hired virtually no new employees for three quarters of the fiscal year. In the "other" category, projections indicate that actual workyear realization in FY 1981 will exceed the FY 1982 ceiling by fifty-one percent.

Full-time Permanent Employment

<u>FY 1981 Estimated Workyears</u>	<u>FY 1982 OMB Workyear Ceiling</u>	<u>Estimated FY 1982 Congressionally Authorized Positions</u>	<u>Workyear Deficiency</u>
3,256.0	3,225	3,466	241

Other Employment

453.1	300	Not Applicable	100
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Workyear resources sought in this package will relieve staffing deficiencies identified through extensive internal management surveys in the following functional categories:

-- Security - Providing adequate security for the visitors, staff and National Collections on exhibit and in reference areas continues to be a high priority of the Institution as indicated by annual budget requests for additional resources to meet these requirements. As a result of the lowered workyear ceilings, gallery guard posts in Mall museums would be reduced increasing the risk of theft or vandalism to the invaluable collections on exhibit; the plainclothes guard force, essential for performing successful criminal investigations, would be reduced or eliminated; the police force at the National Zoological Park would be reduced; and extended evening visitor hours throughout the Institution would be curtailed.

-- Collections Management and Inventory - The collections management function, a broad category that encompasses various aspects of the care of the collections, continues to be a high priority of the Institution. This function consists of detailed record keeping or cataloguing, regular inventories including the Institution-wide collections/management inventory program begun in FY 1979 and targeted for completion in FY 1983, storage or display in secure atmospherically controlled environments, and conservation of objects in the collections. Additional workyear authority is sought to restore bureau museum technician/specialist staffs to minimal levels required for the proper care and maintenance of the collections. The loss of staffing capability in this area significantly erodes progress made in recent years toward improving upon the ratio of support to professional staff necessary to permit our highly paid and well-trained professional staff to concentrate on professional work. Additional workyear authority is required to continue at present levels the Institution-wide inventory effort associated with the transfer of collections to the Museum Support Center in Suitland, Maryland. Another area adversely affected by reduced workyear ceilings is our ability to meet collections conservation requirements. A recent survey indicates that presently a two to four year backlog exists of objects awaiting conservation treatment. Failure to treat these objects could result in further damage or deterioration to irreplaceable works of art.

-- Buildings and Facilities Maintenance - The Institution remains committed to proper maintenance of work and public areas. However, because of lowered workyear ceilings, this goal is becoming more difficult to achieve. For example, the Smithsonian's ability to maintain adequate staffing levels in custodial and trades and crafts personnel (previously staffed at higher Congressionally authorized levels) has been significantly reduced. This situation has resulted in dirtier public areas, deferral of needed repairs to electrical, plumbing and other systems, and has increased significantly costs for overtime for existing staff. The severity of this situation can be seen at the National Zoological Park where due to reduced staffing capability this unit's ability to monitor and maintain the mechanical "life support system" for the live collections may be jeopardized.

-- Research, Exhibitions, Education and Administration - The reduced workyear ceilings have created staffing deficiencies in Smithsonian research, exhibitions, education and administration programs as well. For research, delays in ongoing projects are likely as a result of an imbalance among professional staff and clerical and technical employees. With the high attrition experienced in the research support areas coupled with virtually no turnover in the professional categories, inefficiencies in the conduct and dissemination of research and other programs can be expected. For exhibitions, delays in scheduled exhibit openings may be experienced due to reduced staffing levels

for exhibits design and production personnel. Education, publications programs, local outreach programs, training workshops, evening lecture series programs and other programs available to students, teachers, and the general public would likely have to be curtailed or eliminated. Also, reductions in popular publications available to the public may be necessary as a result of deficiencies in hiring authority for editors and clerical personnel. Administration functions, such as personnel, supply, accounting and budget, are performed centrally in order to promote efficiency and consistency and to hold to a minimum the size of the administrative staff. However, additional workyear authority is required to continue current level administrative services supporting all Smithsonian programs. Also, additional workyear authority is required to meet increased workload as a result of implementation of the Civil Service Reform Act, and to provide needed staffing authority to continue at the current level ongoing equal opportunity programs--a high Institutional priority.

In a related matter, the House, in its mark-up of the Smithsonian's FY 1982 appropriations request, restored 70 full-time positions that were eliminated under President Reagan's budget amendment and transferred to the Smithsonian the National Aquarium from the Fish and Wildlife Service and the National Systematics Laboratory from the National Oceanic and Atmospheric Administration. These two transfers carry with them an additional 20 to 25 positions. Further, the FY 1982 budget request approved by the House Committee includes an additional 104 temporary positions which translate into 75 workyears. Should the House Committee recommendations hold through the appropriations process, the Smithsonian assumes that an additional 90-95 full-time permanent and 75 "other" workyears will be provided to meet these requirements.

The Smithsonian, in allocating the amended FY 1982 Office of Management and Budget workyear ceilings to individual bureaus and units, reprogrammed workyears to the extent possible to meet the most critical staffing shortages within the Institution. However, due to the magnitude of the discrepancy between the number of Congressionally authorized positions and the OMB workyear allocations there remains a severe shortage of staffing authority affecting virtually all programs. Further ways to reduce the need for personnel will be reviewed in conjunction with a study conducted by the Institution of additional functions suitable for contracting. The study, which essentially follows OMB guidelines (Circular A-76), is now underway.

CURRENT SERVICES LEVEL DECISION PACKAGE 2

Smithsonian Institution

Salaries and Expenses: 33-0100-0-1-503

Activity description: Necessary Pay, Utilities, and Rent. A total of \$4.140 million is requested for: 1) uncontrollable pay-related items including anticipated within-grade increases scheduled during FY 1983 (\$1.320 million); the annualization of the General Schedule and Wage Pay increases anticipated for October 1982 for Washington, D.C. based employees and at other times during the year for Smithsonian employees in other geographic areas (\$277 thousand); Merit Pay for supervisors and management officials (\$326 thousand); and Workers' Compensation payments (\$77 thousand); 2) projected cost increases for rent (\$140 thousand) and communications and utilities (\$2.0 million).

<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	
			<u>This</u> <u>Package</u>	<u>Cumulative</u> <u>Total</u>
Budget Authority (\$000)	122,478	135,086	4,140	139,226
Outlays (\$000)	120,740	133,861	4,025	137,886
Full-time equivalent employment (workyears):				
Full-time permanent	3,227 pos. (revised)	3,225	-	3,466
Total	3,636 pos. (revised)	3,525	-	3,866
Necessary Pay:				
-- Within-grade increases			1,320	
-- Annualization of pay raises			277	
-- Merit Pay			326	
-- Workers' Compensation			77	
Utilities			2,000	
Rent			140	

Short-term objectives:

- To meet additional, uncontrollable pay-related costs.
- To cover higher rent, communications and utilities costs anticipated in FY 1983.

Impact on major objectives:

In view of the "uncontrollable" nature of the components of this decision package, the requested resources are essential to allow the continuation of current level programs and functions. Should this request not be approved in full or in part, Smithsonian bureaus and offices would be compelled to absorb these costs (in addition to absorbing an estimated \$220 thousand in uncontrollable unemployment compensation costs in FY 1983 as a result of passage of P.L. 96-499, on December 5, 1980) through reductions to ongoing and planned programs.

Other information:

1. Within-grade and Merit Pay increases and annualization of FY 1982 pay increases

These anticipated increases were calculated by a position-by-position analysis based on proposed positions for FY 1982. Further, the Merit Pay requirements were calculated using the automated data system furnished to agencies by the Office of Personnel Management (OPM). The amount requested for Merit Pay replaces the amount for within-grade and quality step increases that would have been paid to Merit Pay employees under the conventional step system. Funding for the Merit Pay portion of the annual comparability adjustment will be included in the Smithsonian's FY 1983 pay supplemental request.

2. Workers' Compensation

An amount of \$77 thousand is required to meet the provisions of section 8147(b) of Title 5, U.S.C. as amended on April 21, 1976 by P.L. 94-273. This law provides for payments to be made to employees for injuries and to their families in cases where work accidents result in employees' deaths. These payments are administered by the United States Department of Labor's Employment Standards Administration, which bills agencies for costs incurred for their employees. The Smithsonian continues to pursue its Accident Safety Program administered by the Office of Protection Services which includes employee training in safe working environments and supports a safety staff whose duties include performing comprehensive safety surveys and indentifying and eliminating potential accident hazards. A measure of the success of this program can be seen in the fact that the number of substantial claims has declined over the past year. The FY 1983 bill for the Smithsonian totals \$568 thousand. (This bill covers actual expenses incurred for the period July 1, 1980 through June 30, 1981.) With a base amount of \$491 thousand available to meet these increased costs resulting from higher costs for medical services, additional funds totaling \$77 thousand are requested.

3. Rent, Communications and Utilities

The rent, communications and utilities accounts include the following components: electricity, steam, gas, fuel oil, water, telephones, and postage. Also included in this account is the Federal

share of rental space costs of the administrative activities located at L'Enfant Plaza, at the Smithsonian Institution Service Center at 1111 North Capitol Street and at the Smithsonian Oceanographic Sorting Center.

The following table depicts actual and anticipated use and cost of the major components of the utilities account between FY 1980 and FY 1983 and summarizes the projected base shortage in each component between the estimated FY 1982 appropriation and the estimated costs for FY 1983.

ANALYSIS OF UTILITIES COSTS
FY 1980 - FY 1983

Fiscal Year	ELECTRICITY			STEAM			GAS		
	Use Millions of KWH	Unit Cost Average Per KW	Cost \$000s	Use Millions of lbs.	Unit Cost Average Per 1,000 lbs.	Cost \$000s	Use Millions of Cu. Ft.	Unit Cost Average Per Cu. Ft.	Cost \$000s
1980 Actual	83.9	.0488	4,088	227.6	11.23	2,557	.906	.3764	341
1981 Est. Actual	80.1	.0594	4,751	232.5	14.14	3,286	.916	.4968	455
1982 Est.	84.0	.0691	5,800	235.1	16.80	3,950	.920	.5978	550
1983 Est.	84.1	.0762	6,411	235.5	17.83	4,200	.920	.6793	625
1983 Est.			6,411			4,200			625
1982 Base			<u>5,800</u>			<u>4,050</u>			<u>450</u>
	Base Shortage, Electricity		611	Base Shortage, Steam		150	Base Shortage, Gas		175

The major component (\$611 thousand) of the utility increase is for electricity. Electrical usage for FY 1983 is estimated to approximate actual usage in FY 1980, even though consumption estimates include new facilities at the National Zoological Park (including the Monkey Island Exhibit, the Beaver Valley and Great Ape Complexes and the Small Mammals Facility), the conversion of space previously used for storage in the National Museum of Natural History/Museum of Man to exhibition areas, and improved storage facilities at Silver Hill. In FY 1983, increased electricity costs are projected as a result of anticipated annual rate increases as well as increases in the fossil fuel costs incurred by the utility companies which are passed on to consumers.

For steam, consumption between FY 1981 and FY 1983 is projected at a relatively constant level although costs for steam have risen tremendously each year. Historically, the higher steam rates have resulted both from higher costs incurred by the General Services Administration (GSA) for fuel

oil, coal and natural gas which are necessary to generate steam, and GSA's need to recover revenue losses resulting from declining sales due to increased conservation efforts by users. For gas, consumption in FY 1983 is also estimated to approximate actual usage in FY 1981. Increased costs anticipated for gas result from annual rate increases approved by the Public Service Commission and the effects of fuel costs.

The communications increase (\$763 thousand) is for telephone costs. The Smithsonian's practice of limiting communications costs by requiring central review and approval of all requests for service has proven effective as evidenced by an equipment growth rate of only 12 percent between 1976 and 1981. Recent rate increases, however, have caused these costs to rise dramatically. Currently, a total base of \$1.483 million is available to fund local telephone costs (\$923 thousand) and to fund operation of the Federal Telecommunications Network Service (FTS) administered by the General Services Administration (\$560 thousand). In May 1981, the GSA advised the Smithsonian that a series of recent rate increases approved by the Federal Communications Commission (FCC) would result in a 20 percent cost increase for operation of the FTS. In addition, local telephone service costs rose by 45 percent as a result of rate increases granted in June 1981 to the C&P Telephone Company by the Public Service Commission. Further, based on past experience, rate increases are projected to occur in FY 1982 and in FY 1983 for local telephone service costs. The increases are projected to increase costs by an estimated 18 percent during this period.

Additionally, an increase of \$301 thousand is needed to cover projected increased costs of fuel oil and water (\$50 thousand), and mail (\$251 thousand), the latter resulting from rate increases granted in March 1981 by the U.S. Postal Rate Commission for bulk and 1st class mailings.

Rental Space:

This item consists of the proportionate Federal rental space costs of the administrative activities located at L'Enfant Plaza, the Smithsonian Institution Service Center at 1111 North Capitol Street and the Smithsonian Oceanographic Sorting Center at the Washington Navy Yard. Under the terms of current rental leases, the Smithsonian is required to assume additional costs for operating expenses brought about by increases in maintenance and utility costs. An amount of \$140 thousand is required to cover higher space rental costs at these locations which are estimated to total approximately \$1.3 million in FY 1983. (An amount of \$130 thousand for additional rental space for the Smithsonian Institution Libraries is justified under the Current Services - Collections Management decision package 8.)

It is anticipated that the Smithsonian Oceanographic Sorting Center will move to the Museum Support Center at Suitland, Maryland, about mid-FY 1983. Space rental savings realized will be applied to the cost of equipping this new collection management facility.

Energy Conservation Efforts:

In order to manage use of energy in the most efficient manner possible consistent with proper environmental conditions for the collections, the Institution is continuing efforts in support of a comprehensive energy management program which concentrates on promoting systems efficiency and conservation. Efforts to promote conservation include operation of a complex computerized power management system which has resulted in substantial energy cost avoidance. This system minimizes costly peak demand rates by cycling motors on and off on a prescheduled basis, and when necessary, selectively shutting down equipment. Monitoring systems have greatly assisted the Institution's conservation efforts by assuring that all building operating equipment function efficiently.

Progress made in promoting energy conservation in FY 1981 and planned in FY 1982 includes continuation of the phased program of performing comprehensive building energy audits and renovating heating, ventilating and air conditioning, plumbing, and electrical systems in the Institution's facilities. (Plans and progress in developing energy efficient utilities systems are addressed in the Construction portion of the budget.) Improvements in these systems will produce the most significant energy savings to the Institution while providing stable temperature and humidity conditions necessary for the preservation of the collections.

Other continuing efforts to achieve more economical and efficient energy use include reducing lighting levels in work and non-public spaces and, whenever possible, in public areas; installing more efficient lighting fixtures with new switching patterns and controls; operation of heating and air conditioning systems at minimum levels required to prevent damage to collections; shut-down of fans and other heavy consumers of electricity during non-public hours; continuation of an awards program for employees who submit original suggestions that are implemented to conserve energy; and greater attention to energy conservation in determining space use, in modifying existing space, and in designing new facilities such as the National Zoological Park's Great Ape Complex, which has a complete solar powered domestic hot water system.

Although weather, numbers of visitors and new facilities all affect energy consumption, a measure of the success of the Institution's energy conservation efforts can be seen in the fact that consumption of electricity, steam and gas are expected to remain relatively constant between fiscal years 1980 - 1983 despite the addition of new facilities. Between FY 1978 and FY 1981 the Institution has avoided an estimated \$2.0 million in utilities costs as a result of the energy conservation measures outlined above.

CURRENT SERVICES LEVEL DECISION PACKAGE 3

Smithsonian Institution

Salaries and Expenses: 33-0100-0-1-503

Activity description: Inflation. Resources totaling \$1.7 million are requested to help offset the cumulative and anticipated costs to the Smithsonian as a result of inflation. The amount requested is calculated on the basis of seven percent of the total nonsalary object classes of expenses estimated for FY 1982, excluding utilities, rent and Museum Support Center equipment. Inflationary increases represent significant costs that have the cumulative effect of seriously eroding research, exhibitions, collections management, collections acquisition, and education and public orientation programs, as well as facilities management and administrative services. The result of inflation, therefore, is equivalent to a significant cut each year to the base resources of all the Smithsonian's approximately sixty organizational units.

<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)				
	122,478	135,086	1,700	140,926
Outlays (\$000)	120,740	133,861	1,653	139,539
Full-time equivalent employment (workyears):				
Full-time permanent	3,227 pos. (revised)	3,225	-	3,466
Total	3,636 pos. (revised)	3,525	-	3,866

Short-term objective:

-- To help offset the effects of inflation in the other objects of expenses portion of the Salaries and Expenses appropriation.

Impact on major objectives:

-- In view of the effects of inflation, the resources requested in this package are essential to fund all Smithsonian activities at the current services level. A significant reduction in the quality of Smithsonian programs would result if this request is not approved.

Other information:

Cost increases continue to have a severe effect on the Smithsonian's ability to carry out its program functions as they were intended. One such functional area is research. Scientific supplies and contracts for instrument repair and maintenance are becoming increasingly more costly. The following table lists some items that are purchased regularly and illustrates such increases.

Research and Scientific Supplies and Contracts

<u>Item</u>	<u>FY 1980</u>	<u>FY 1981</u>	<u>Percentage Increase</u>
Electron microscope maintenance/year	\$4,476.00	\$5,064.00	13 percent
Deionized water apparatus	1,980.00	2,178.00	10 percent
Liquid nitrogen, 120 liters	53.26	58.30	9 percent
Volumetric flasks, pkg. 6, 100 ml.	83.95	111.78	33 percent
Electronic scientific equipment maintenance/year	5,020.00	5,705.00	14 percent
Kimwipes, per case	28.45	70.75	149 percent
Lab cart	195.00	253.00	30 percent
Digital 125 Ph/ion meter	727.00	850.00	17 percent

Inflationary cost increases of research-related items used in the sciences, history and art are also evident including those for supplies, books, journals and publishing. The cost of ethyl alcohol in which specimens are stored has increased 9 percent over FY 1980 prices. Film used in the scanning electron microscope lab has increased 51 percent in cost compared to 1979 prices.

The history, art, and scientific scholarly book and journal trade has been especially prone to a rapid rate of inflation. The rate is projected to reach 16 percent in FY 1983. The growth of the books and journals budget has not kept pace with the rise in prices as they are affected by inflation. Consequently, journals are purchased first and the limited remaining resources are used to purchase books for the collections. The Smithsonian Institution Libraries (SIL) will expend \$499 thousand in FY 1981 for books and journals. Because of severe budget restraints there is a heavy reliance on obtaining books and journals from other libraries. The SIL borrows six times as much as it lends to other libraries. Also, duplicates and lesser used serials are discontinued in an effort to cut annual acquisition costs.

Publication costs essential to scientific research, as well as to exhibition and educational programs have been rising steadily also. For example, the cost per printed page of the series publications has increased 13 percent in FY 1981 over FY 1980 costs. The estimated cost for FY 1981 for this program in the National Museum of Natural History is over \$300 thousand. These publications are disseminated to schools, libraries and other museums.

The increases in costs of materials and supplies caused by inflation places a severe strain on the base resources needed to maintain our active exhibits program. The materials used to mount exhibitions are becoming increasingly costly. The following table illustrates this.

Exhibition Materials

<u>Item</u>	<u>FY 1979</u>	<u>FY 1981</u>	<u>Percentage Increase</u>
Pine - per bd. ft.	\$ 2.50	\$ 3.80	52 percent
2x4s - 16 ft.	6.20	7.98	29 percent
Paint, white latex - 1 gal.	6.49	11.50	77 percent
Plexiglas - 4' x 8' - 1/8"	33.60	46.40	38 percent
Plywood - 4' x 8' sheet - 1/2"	16.77	20.50	22 percent
Drywall - 4' x 8' sheet - 1/2"	4.20	5.24	25 percent
300 W bulbs - case	70.80	191.76	171 percent
Plywood - 4' x 8' sheet - 3/4"	22.18	30.44	37 percent

Measures are taken to lessen the effects of inflation on exhibit preparation cost. For example, the construction of flexible cases reduces the cost and time required to build a customized case for each exhibit. Whenever possible the work to repair and construct an exhibit area is done by Smithsonian staff rather than by outside contractors.

The transportation and shipping associated with Smithsonian programs such as the Traveling Exhibition Service, loan programs of the museums and galleries, and the archival efforts of the Archives of American Art is another area of rapidly escalating cost. Because the collections possess intrinsic as well as scholarly value, special handling, which increases transporting fees, is a requirement. The size of the

collection alone may cause numerous shipping problems and additional costs. Shipping fees have doubled in the last three years due to the rise in labor, fuel and maintenance expenses. The Institution anticipates spending \$450 thousand on shipping in FY 1981. To help overcome these escalating costs and to remain within OMB's spending limitations, less desirable means of transporting objects are employed. Staff and vehicles are used in lieu of shipping firms. Some collections are wrapped and sent by mail. Consequently, valuable staff time which otherwise would be devoted to research, exhibition and acquisitions programs is diverted because of the need to utilize these alternative measures.

The collections management programs, which are basic to the preservation of invaluable objects, have been affected by the steady price increases of such items as storage cases, insect trays, shelving, and medical supplies for the animal collection. Chemicals used for conservation have increased an average of 38 percent over the last year. The cost of acid-free wrapping paper and folders routinely used to prevent the deterioration of paper has increased 18 percent. Similarly, the cost of stainless steel storage tanks that house in alcohol items such as small mammals, reptiles, brains, and fishes has increased from \$274 per unit in FY 1980 to \$308 per unit in FY 1981, an increase of 12 percent. The storage shelves to support these tanks have increased 13 percent in cost. As new specimens become part of a collection and when they are returned from being on loan they are fumigated to protect them from insect damage. Stored botanical specimens are sprayed every few years; bird and mammal storage cases are routinely fumigated twice a year. The price of fumigation gas used to perform this function has increased 177 percent over FY 1980 prices. Similar dramatic price increases are observed in the purchase of other materials used for archival purposes. The following table lists several of these items.

Collections Management Equipment

Storage cases for specimens		
per unit - 1978: \$189.60		
1981: \$245.00	29 percent increase	
Hexane, chemical used in Anthropology Conservation Lab		
4 liters - 1980: \$18.25		
1981: \$21.35	17 percent increase	
Lightcast tape 3", lightweight flexible cast for animals		
1980: \$42.65		
1981: \$52.65	23 percent increase	
Disposable scalpel #10 blade		
per box - 1980: \$5.90		
1981: \$7.12	21 percent increase	
Disposable latex surgical gloves		
box of 100 - 1980: \$7.50		
1981: \$8.75	17 percent increase	

The National Zoological Park continues to feel the effect of inflationary increases in the cost of feeding the animal collection. Some measures are being taken to circumvent these inflationary pressures. Among them is the growth of hay and alfalfa at the Front Royal Conservation and Research Center to supplement food and bedding purchases. In FY 1981, approximately \$300 thousand will be expended for food for the 2,000 animals. This is an annual increase of 15 percent. Medicine for the animals has increased as much as 19 percent over FY 1980 prices. For a program whose mission is to improve the health and longevity of its collection with an emphasis on preventive medical programs, as well as emergency medicine, surgery, dentistry, geriatric medicine and neonatal medicine, it is vital that resources for medical supplies be available.

Significantly higher costs of uniform cleaning services result in reduced availability of monies for protection items. The cost for these necessary services for the Office of Protection Services is projected to increase from \$61 thousand in FY 1981 to \$69 thousand in FY 1982, an increase of 13 percent. The costs associated with maintaining, testing and inspecting the security systems have increased also. Funds totaling \$450 thousand will be expended in FY 1981 for security and fire systems maintenance and repair. This is an increase of approximately 17 percent over the cost of similar services provided in FY 1980.

The Institution's facilities management and administrative functions also continue to witness inflationary impact. For example, trash collection services have increased 15 percent over the FY 1980 cost. Computer maintenance services for the Office of Computer Services are projected to cost the Institution \$127 thousand in FY 1981. This is an increase of 35 percent over FY 1980. The cost of computer programming training courses are increasing as well. Office machine repair costs are expected to increase 25 percent over FY 1981 prices. The cost of some required cleaning items has escalated as much as 39 percent. Hand soap that cost \$20.80 per case in FY 1979 costs \$26.00 per case in FY 1981, an increase of 25 percent. The cumulative impact of these and other inflationary price increases can alter budget planning significantly.

The request of a seven percent increase to nonsalary funds is a modest one. Yet, the additional resources of \$1.7 million proposed in this decision package are vital to the integrity of virtually all programs of the Institution. If approved, these resources will assist in maintaining the Smithsonian's programs at a level approximating current effectiveness.

CURRENT SERVICES DECISION PACKAGE 4
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Museum Support Center-related costs. Additional resources of \$3.905 million and 99 full-time permanent positions and workyears and one "other" workyear are included in this package: 1) to continue for the third year the phased purchase program of laboratory and collections storage equipment; 2) to meet building operating expenses including personnel, supplies and equipment for the janitorial, maintenance and security functions; 3) to meet program development costs for the National Museum of Natural History/Museum of Man, the National Museum of American History and the Conservation Analytical Laboratory; 4) to fund utilities expenses; and 5) to defray nonrecurring costs for relocating the collections.

		1983		
<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	122,478	135,086	3,905	144,831
Outlays (\$000)	120,740	133,861	3,797	143,336
Full-time equivalent employment (workyears):				
Full-time permanent	3,227 pos. (revised)	3,225	99	3,565
Total	3,636 pos. (revised)	3,525	100	3,966

Short-term objectives:

-- To continue the phased program of purchasing essential storage and laboratory and support equipment in coordination with the planned occupancy of the Museum Support Center building scheduled to be completed in January 1983.

-- To continue the phased staff expansion for the program functions within the Center including the Conservation Analytical Laboratory begun in FY 1981, the National Museum of Natural History/Museum of Man and the National Museum of American History.

-- To begin meeting the staffing requirements related to facilities operations, including those of the Office of Protection Services, Office of Plant Services, Museum Support Center Building Management Office and Office of Horticulture.

Impact on major objectives:

Resources in this package will ensure program and operational support for the Museum Support Center.

Other information:

The following chart summarizes the overall Museum Support Center-related costs between FY 1981-FY 1987. These costs are discussed individually in the following sections of this decision package.

Museum Support Center - Related Costs

(Dollars in thousands)	FY 1981		FY 1982		Proposed Change 1982-1983		FY 1983		FY 1984		FY 1985		FY 1986		FY 1987	
	(Pos.)	\$	(Pos.)	\$	(Pos.)	\$	(Pos.)	\$	(Pos.)	\$	(Pos.)	\$	(Pos.)	\$	(Pos.)	\$
Operating and Program Personnel and Support	(8)	112	(8)	181	(99)	+2,100	(107)	2,281	(123)	2,913	(129)	3,115	(131)	3,240	(133)	3,320
Moving Expenses	-	-	-	-	-	+1,100	-	1,100	-	750	-	750	-	-	-	-
Utilities	-	-	-	-	-	+800	-	800	-	880	-	990	-	1,070	-	1,180
Equipment:																
Collections Storage	-	2,051		3,225	-	-68	-	3,157	-	1,985	-	1,200	-	1,300	-	1,300
Other	-	660		1,270	/1	-27	-	1,243	/1	1,215	-	-	-	-	-	-
Total	(8)	2,823	(8)	4,676	/1	(+99)	+3,905	(107)	8,581	/1	(123)	7,743	(129)	6,055	(131)	5,800

/1 An additional \$750 thousand of Trust funds has been made available for Conservation Analytical Laboratory equipment to be expended in FY 1982 (\$500 thousand) and FY 1983 (\$250 thousand).

-- Museum Support Center Construction Schedule and Progress - Groundbreaking for the Museum Support Center occurred in January 1981 and the construction schedule indicates the construction of the building will be complete in January 1983. The contractor is currently ahead of schedule and barring unforeseen circumstances the schedule should be maintained.

-- Operating and Program Personnel and Support Requirements:

Positions	<u>FY 1981</u> 8	<u>FY 1982</u> 8	<u>FY 1983</u> 107	<u>FY 1984</u> 123	<u>FY 1985</u> 129	<u>FY 1986</u> 131	<u>FY 1987</u> 133
(\$000)	\$ 112	\$ 181	\$ 2,281	\$ 2,913	\$ 3,115	\$ 3,240	\$ 3,320

The Smithsonian has reviewed thoroughly all additional requirements associated with operating the Museum Support Center. As a result of this review, we have been able to limit the personnel requirements to 133 positions, a reduction of some 21 percent over projections in last year's Five-Year Prospectus. Of course, actual operating experience may dictate adjustments to this figure. The additional resources requested here represent the minimum resources necessary to operate this unique building which occupies a 4.2 acre site. Any further reductions would not allow us to protect adequately the staff, collections or building, properly maintain or operate the building or its equipment or develop the programs the building was intended to serve.

A. Operating Personnel and Support Requirements:

A total of 83 full-time permanent positions and workyears and one "other" workyear and \$1.564 million is required in FY 1983 to provide essential operating functions for the Museum Support Center such as security and protection for the staff and the collections; maintenance and operation of utility systems; maintenance and janitorial support; shipping and receiving functions; roads, perimeter and grounds maintenance; and administrative services.

-- Office of Protection Services - (33 positions and workyears and \$636,000) - The Office of Protection Services (OPS) will have the responsibility to provide internal and external security for the Museum Support Center twenty-four hours a day and provide health services to both the Silver Hill and Suitland complexes. Thirty-one guards on three shifts staffing fourteen posts will be assigned to the interior of the building including the control room which will monitor activity and will control access through the use of closed circuit television, motion and audio detectors, electric locks, card reading devices and intercoms. K-9 teams will provide perimeter and exterior area security for the 26 acre site.

One alarms maintenance mechanic will be required to maintain all the security devices, sensors and electrical locks which are integral parts of the proprietary security and fire alarm system, a prototype security system which will be expanded during the next ten years to all Smithsonian museums in the Washington, D.C. Metropolitan area. Also requested is one position for a nurse and associated supplies and equipment to establish a health unit to serve both the Silver Hill facility and the Museum Support Center.

-- Office of Plant Services - (22 positions and workyears and \$548,000) - The Office of Plant Services (OPlantS) will have the responsibility to operate and maintain the utilities systems and to provide necessary building maintenance and transportation. Ten maintenance mechanics are required to operate high pressure steam generators and other components of the heating, ventilating and air conditioning (HVAC) system 24 hours a day, 7 days a week. These systems must maintain stable temperature and relative humidity conditions at levels necessary for the preservation of the collections stored at the Center. The systems must be monitored to insure that the equipment is operating within acceptable levels of efficiency, energy consumption and safety.

Four preventive maintenance mechanics will perform scheduled maintenance tasks for the complex HVAC systems which constitute 53 percent of the total Museum Support Center construction costs. An adequate preventive maintenance program, carried out in accordance with manufacturers' recommendations, will limit costly emergency repairs and protect both the collections that are sensitive to changes in temperature and humidity conditions and the Government's investment by maintaining manufacturers' warranties.

Six trade and craft mechanic positions (two electricians, a machinist, a sheetmetal mechanic, a plumber, and a carpenter) are required as a cadre of OPlantS personnel to install laboratory equipment and fixtures including sinks, branch plumbing, electrical outlets, exhaust hoods and ductwork, countertops and compressed air systems which will be purchased or installed separately from construction contract. These six positions also will be utilized to repair damage that inevitably occurs in the course of relocation and to convert storage space at the National Museum of Natural History/Museum of Man to exhibit space. As the Museum Support Center building ages, these positions also will be used for normal repair and maintenance work.

Mail and transportation services will require two additional positions and \$25,000 for a van and fuel. Since there will be permanent offices at the Museum Support Center, the pick-up, delivery and distribution of mail will be an essential service to the proper functioning of the facility. Two daily round trips will be necessary between the Center and Mall buildings. This will be accomplished in conjunction with transporting curators and scientists, whose offices will remain on the Mall but who must have ready access to their collections at the Museum Support Center. In the routine conduct of daily business it will also be necessary for other operating and administrative staff to be able to travel to and from the Center without long delays or the unnecessary expenditure of fuel that would be required by individual trips.

-- Office of Horticulture - (Two positions and workyears and one "other" workyear and \$70,000) - The Office of Horticulture will be responsible for ground maintenance of the 26 acres at the Museum Support Center site. Grounds maintenance includes upkeep of the perimeter fence line for security purposes, care and mowing of grass, snow removal, leaf collection and disposal, trash removal, insect and pest control, and the planting and maintenance of minimal landscaping. Two full-time gardeners would be augmented by seasonal help when workloads exceed their capabilities.

-- Building Manager, Museum Support Center - (26 positions and workyears and \$310,000) - The Office of the Building Manager will be responsible for providing shipping and receiving functions, administrative support, cleaning and maintenance of the physical plant. Three positions (a building manager, a secretary and an administrative clerk) will provide the necessary direction, administrative services and facilities management.

Two positions will be required to fulfill the important transportation function at the Center. While the receiving activities will receive the heaviest emphasis in the course of the relocation of the collections, under normal operations substantial movement both in and out of the Center will be typical. Objects and specimens will be leaving the Center for exhibition or study while items will be sent to the Center for storage, curation or treatment. A transportation technician and transportation clerk will be responsible for unpacking, controlling, routing for registrarial purposes for incoming material and conversely appropriately packing, insuring and posting packages and crates leaving the Center.

A total of 13 janitorial positions and eight general laborer positions will perform the cleaning and maintenance of the building including servicing of light fixtures, movement of equipment and collections within the building and generally making a significant contribution toward keeping the collections in an environment which is clean, orderly and sanitized.

B. Program Personnel and Support Requirements:

A total of 16 full-time permanent positions and workyears and \$536 thousand is required for functions of a program nature to be carried out at the Museum Support Center. These functions include basic program direction for the Center, development of registrarial services and collections management policy, emergency conservation to the collections prior to relocation and the continued development of both conservation services and the conservation training program.

-- National Museum of Natural History/Museum of Man - (Five positions and workyears and \$181,000) - These positions will begin the phased build-up of program development, curatorial and conservation staff to care for the vast number of items in the collections to be moved from the National Museum of Natural History/Museum of Man. These additional resources include a director, a secretary, a registrarial assistant, an anthropological conservator and a clerk/typist. The director will be charged with responsibility for overall program development, implementation and operation at the Museum Support Center. The director, with support from the registrarial assistant, also will coordinate and oversee the implementation of collections management policies and information management procedures of all items which come to the Museum Support Center during the move from the National Museum of Natural History/Museum of Man and the National Museum of American History. The registrarial function will be responsible for documenting the movement, location and condition of items in the collection at the Museum Support Center. One conservator also is requested to begin treatment of anthropological artifacts and objects at the National Museum of Natural History/Museum of Man which cannot be moved in their present condition without severe or irreparable damage.

-- National Museum of American History - (One position and workyear, \$20,000 and contract conservation funds of \$40,000) - One full-time conservator, who will become a member of the National Museum of American History conservation laboratory staff at the Museum Support Center, is required to treat fragile and delicate objects prior to their movement to the Museum Support Center. Funds for contract conservation will provide support for the volume of conservation work which exceeds the capacity of the current staff and to deal with temporary workload increases generated by the move to the Museum Support Center.

-- Conservation Analytical Laboratory - (Ten positions and workyears and \$295,000) - Seven positions and \$176 thousand are needed to establish the collections management function and three positions and \$119 thousand are required to continue the phased development, with the cooperation of area universities, of a comprehensive conservation training program. Currently, the Conservation Analytical Laboratory (CAL) has a base of seven positions and \$181 thousand appropriated in FY 1981 for their operations at the Center. Four positions have been devoted to establishing the conservation training program and three have been provided for base staffing for the collections management and conservation function. An additional ten positions will be required for these purposes between FY 1983 and FY 1985.

For collections management in FY 1983, three conservators, a microanalyst, a radiographer, an x-ray analyst, and a fumigation technician are needed to reduce the backlog of items in the collections at all Smithsonian museums requiring treatment and to continue the sharing of conservation data with other museums and research organizations in the United States and abroad. Also included are funds to purchase supplies for the fumigation chamber which will be purchased in FY 1981 and will be installed during building construction. Each item entering the Museum Support Center must be fumigated to eliminate the possibility of insect, rodent or bacterial contamination.

For the conservation training program, three positions and workyears and \$32 thousand are needed for salaries and benefits and \$87 thousand are required for training supplies and equipment. A training coordinator for equipment will assure that specialized types of conservation equipment, which will be shared among scientists, conservators and students, are available when needed for conservation and education. The coordinator also will arrange that students are trained in those types of equipment which relate most closely to the materials which they will be treating. An editor/information specialist and clerk will work with reports which are drafted by a conservator on every item treated. These reports are detailed descriptions of the items treated, the need for conservation, and the individual steps in the treatment process. The reports are widely disseminated throughout the United States and abroad and the editorial position will ensure accuracy and consistency in format and approach and clarity in style and content.

-- Moving Expenses:

	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>
(\$000)	--	--	\$1,100	\$ 750	\$ 750	--	--

An amount of \$1.1 million is sought for one time expenses associated with the move from the National Museum of Natural History/Museum of Man and the National Museum of American History which will take from five to seven years. The magnitude of this transfer of collections appears to be unprecedented in the museum community both in terms of numbers of items to be moved, the distance to be moved and the variety of materials and the differing conditions of the objects. The National Museum of Natural History/Museum of Man alone may send as many as ten million objects and specimens to the Center over the next several years. The Institution currently is soliciting advice from moving specialists and museological sources regarding the most effective and safest method to move the collections. There appears to be no one best way for all materials but rather the methods of transfer should be keyed to the type of collections to be moved. The first collection scheduled to be relocated to the Museum Support Center will be specimens preserved in liquid from the Smithsonian Oceanographic Sorting Center which currently occupies leased space in the Navy Yard. The funds requested will be used to purchase reusable shipping containers, packing materials and contract moving services where appropriate. Depending on results of our study now being conducted it may be cost beneficial to acquire moving vans or trailers from vehicle surplus.

-- Utilities:

	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>
(\$000)	--	--	\$ 800	\$ 880	\$ 990	\$1,070	\$1,180

A total of \$800 thousand is required to fund the costs of electricity for lighting, ventilating and air conditioning (\$410 thousand) and to fund fuel oil or gas for heating (\$390 thousand) the Museum Support Center. The Center will be equipped with dual-fired boilers which generate steam to heat the building and that can use either fuel oil or gas depending on the availability and cost of each. Electricity will be used for ventilating and air conditioning the building in addition to providing power for lights, chillers, pumps and scientific and office equipment. In the estimates for both electricity and fuel oil or gas, the number of heating or cooling degree days in the Washington, D.C. area was factored with the capacity of the equipment in use and multiplied by the projected cost of the utility for FY 1983. As with other Smithsonian buildings, a computerized power management system which minimizes costly peak demand rates will be installed in the Museum Support Center.

-- Equipment:

(\$000)	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>
Collection Storage	\$ 2,051	\$ 3,225	\$ 3,157	\$ 1,985	\$ 1,200	\$ 1,300	\$ 1,300
Other Equipment and Furnishings	660	1,270 /1	1,243 /1	1,215	--	--	--
Total	\$ 2,711	\$ 4,495 /1	\$ 4,400 /1	\$ 3,200	\$ 1,200	1,300	\$ 1,300

/1 An additional \$750 thousand of Trust funds has been made available for Conservation Analytical Laboratory equipment to be expended in FY 1982 (\$500 thousand) and FY 1983 (\$250 thousand).

An amount of \$4.4 million is requested for collections storage equipment (\$3.157 million) and for work area and laboratory furnishings, horticultural and library equipment (\$1.243 million). This represents a net reduction of \$95 thousand below FY 1982 level and continues the planned acquisition of storage and other equipment necessary for the proper functioning of the Museum Support Center.

A. Storage Equipment - In FY 1981, the Institution will be purchasing wet storage equipment which is essentially open shelf storage for bottles containing alcohol-preserved specimens from the Smithsonian Oceanographic Sorting Center, and portions of the Departments of Vertebrate and Invertebrate Zoology of the National Museum of Natural History/Museum of Man(NMNH/MOM). Wet storage will occupy one of the four storage pods of the Museum Support Center. A request for a proposal has been issued and bid openings will take place on September 1, 1981. In FY 1982, an amount of \$3.225 million is planned to continue the acquisition of the three tiered self-supporting storage racking system. Each rack will hold storage compartments with various sized drawers or shelves or other components as is appropriate for the collections being stored. Storage equipment for the Department of Entomology will have priority for FY 1982 in order to free exhibition space now occupied by storage cases in the NMNH/MOM. In FY 1983 and beyond, additional dry storage racks of the same type will be acquired for collections in anthropology, botany, mineral sciences, paleobiology, the remaining collections in vertebrate and invertebrate zoology, and smaller collections of the National Museum of American History. An amount of \$3.157 million is sought for this purpose in FY 1983.

B. Other Equipment - Acquisition of equipment for research and conservation laboratories, work area furnishings, security, horticulture, library and photographic equipment was begun in FY 1981 and will continue through FY 1984. For FY 1983, \$1.243 million is requested to purchase laboratory fixtures and equipment for conservation purposes such as fume and exhaust hoods, large laboratory sinks, binocular microscopes and compressed air systems. This equipment will be used in the specialized conservation laboratories of the National Museums of Natural History and American History (\$1.179 million). The balance of \$64 thousand will provide operating equipment for the Office of Horticulture (\$30 thousand) for mowers and snow removal equipment; the Smithsonian Institution Libraries (\$10 thousand) for shelving; and for photographic equipment such as cameras, developing equipment and supplies for recordation and documentation of conservation procedure and treatment (\$24 thousand).

CURRENT SERVICES DECISION PACKAGE 5
 Smithsonian Institution
 Salaries and Expenses: 33-0100-0-1-503

Activity description: Security. Resources of 48 full-time permanent positions and workyears and \$2.662 million are requested to initiate a program to strengthen security for Smithsonian facilities. An additional amount of \$152 thousand is requested to convert hazardous nitrate film negatives into archival quality safety film.

<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	122,478	135,086	2,814	147,645
Outlays (\$000)	120,740	133,861	2,736	146,072
Full-time equivalent employment (workyears):				
Full-time permanent	3,227 pos. (revised)	3,225	48	3,613
Total	3,636 pos. (revised)	3,525	48	4,014

Short-term objectives:

- To alleviate a shortage of guards in public galleries and provide additional technical security support.
- To upgrade the security devices and systems in most Smithsonian facilities to reduce the need for additional uniformed guard increases.
- To provide a safe, secure environment for visitors, staff and the collections.

Other information:

The Smithsonian recently conducted a careful study of security requirements at all museums and facilities of the Institution. The results indicate that there are considerable areas where security coverage is not adequate and opportunities exist for theft, break-in or vandalism. In order to correct these deficiencies, a total of 117 additional positions (105 guards, 10 alarms maintenance mechanics and 2 security specialists) and workyears and \$4.4 million will be required. The Institution plans to request these resources over several years, devoting attention first to those areas that present the most serious gaps in the security of the visitors, staff and collections.

Several criminal incidents within the past several years, some of a violent nature, are indicative of the situation that the Institution and the Office of Protection Services must face and cope with on a daily basis.

-- There have been three cases of sexual assault in the vicinity of Smithsonian buildings, one of which resulted in the death of a Smithsonian Resident Associate.

-- An armed robbery suspect, carrying a shotgun, was apprehended by a uniformed guard at the National Museum of American History.

-- An employee at the National Portrait Gallery was the victim of an armed robbery inside the Gallery.

-- A visitor to the National Museum of American History was the victim of an assault and robbery on the Museum terrace.

-- During the past year at least six separate instances of theft occurred at the National Museum of American History. The stolen items were of irreplaceable historical value and were primarily made of precious metals.

The total number of criminal incidents reported in Smithsonian buildings and grounds rose 44 percent in 1980 and at the current rate is projected to increase by another 15 percent in 1981.

For FY 1983, 48 positions and workyears and \$1.08 million are requested to increase the Office of Protection Services' base resources of 555 positions and \$11.9 million. Some 42 guard positions and \$590 thousand would be distributed among the National Museum of Natural History, the National Museum of American History, the National Museum of American Art, the National Portrait Gallery, and the National Air and Space Museum to correct shortages which have existed for several years in these museums and galleries. These positions would provide more adequate security coverage and substantially decrease response time to alarms. Four alarms maintenance mechanics and two security specialists and \$130 thousand would allow the Institution to maintain, repair and test on a regular basis the sensors, alarms and locks which are and will be installed in all Smithsonian facilities. A one-time request of \$160 thousand (in addition to base funds in the same amount) will be used to install the first phase of the proprietary security system on the Mall at the National Museum of American History. The proprietary system will replace a leased security network that no longer meets the Institution's needs and which is twice as expensive to operate and service as an Institution owned, installed and maintained system. The prototype of this system will be installed in the Museum Support Center during FY 1982 and FY 1983. It is comprised of a central computer which links fire detection and security sensors located throughout the building with a central control room from which patrolling guards may be dispatched to the location of an activated sensor for appropriate action. Closed circuit television controlled by the computer would allow the control room operator to assess

the problem by visual inspection or by use of an intercom. The Office of Protection Services also requests \$200 thousand in base funds to replace security equipment including magnetic contacts, motion detectors and electric locks. These types of devices have an average life of five years and deteriorate or weaken through wear and use.

A further amount of \$1.582 million is requested (over an Institution base of approximately \$1 million distributed among a number of museums and bureaus) for one-time costs associated with security equipment in 19 Smithsonian bureaus. For many years, the Institution has approached the requirements of protection and security on an "as needed" basis. What has resulted is a situation in which the security of the National Collection is at times uneven and in some instances inadequate. Several museums have systems which are obsolete or only function intermittently with frequent attention required. Others have large areas of nonpublic space which are not monitored and where access is not controlled, or have only lock and key arrangements which provide a minimum of security but which would not deter a determined unauthorized entrance. Two museums which will require particular attention are the National Museums of Natural History and American History. These museums contain artifacts and objects of immense and escalating intrinsic value and others of priceless, cultural, esthetic or scholarly worth. Both of these cavernous buildings were constructed in times when the dangers to the collections, visitors and staff were not as great as today.

With the requested funds alarms will be replaced or installed on outside doors and windows and interior storage and staging areas; card readers or cypher locks will be installed to limit access to nonpublic and to sensitive areas of the building, and closed circuit television systems will be used to provide greater perimeter security. Contact and vibration alarms and security locks will be placed on exhibit cases containing valuable items in addition to replacement of covers with shatter resistant plexiglas and tamper resistant hardware. Where practical, shear gates will be installed to isolate exhibit halls when these areas are closed. In facilities such as the Smithsonian Institution Service Center and the Silver Hill Facility, security improvements will concentrate on fire detection devices with greater reliability and closed circuit television for perimeter and interior security in order to limit the need for additional uniformed personnel.

In addition, a sum of \$152 thousand is requested to augment the Institution's effort to eliminate the hazards of nitrate film at three Smithsonian activities--the Office of Printing and Photographic Services (\$100 thousand), Smithsonian Institution Archives (\$27 thousand), and the Cooper-Hewitt Museum (\$25 thousand). This important activity involves the conversion of volatile nitrate film to archival quality safety film thus eliminating a potential fire hazard and preserving historic and valuable photographic images.

CURRENT SERVICES DECISION PACKAGE 6
 Smithsonian Institution
 Salaries and Expenses: 33-0100-0-1-503

Activity description: Buildings and Facilities Management. The Institution has established as a high priority in this budget the proper care and maintenance of its large and complex physical plant on or near the Mall, at the National Zoological Park and at a number of outlying locations. Resources included in this package (\$1.345 million) are required in order for the Institution to devote adequate basic care to its buildings.

<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	122,478	135,086	1,345	148,990
Outlays (\$000)	120,740	133,861	1,308	147,380
Full-time equivalent employment (workyears):				
Full-time permanent	3,227 pos. (revised)	3,225	-	3,613
Total	3,636 pos. (revised)	3,525	-	4,014

Short-term objective:

-- To provide maintenance services to the physical plant at all Smithsonian facilities in support of research, exhibitions, education, and collections management.

Other information:

Buildings and facilities management covers the routine maintenance and repair of the Smithsonian's buildings and grounds. Prompt attention to the needs of the physical plant and a strong preventive maintenance program are necessary to avoid costly major breakdowns and high energy loss; to provide a healthful, safe and efficient workplace; and to ensure the safety and preservation of the collections. Moreover, the Smithsonian, as the National Museum, has an obligation to provide clean and well-maintained facilities for the presentation of exhibitions to millions of visitors each year. A diligent maintenance program also helps to protect the investment of Restoration and Renovation funds.

Funds of approximately \$600 thousand are included in this decision package for contractual services. It is the area of basic maintenance that use of outside contractors is most appropriate. Such use fully accords with the criteria set forth in OMB Circular A-76, and will result in holding down the need for additional personnel.

Specific increases are sought both for the Office of Plant Services, which provides centralized repair and preventive maintenance services, and for buildings maintenance staffs of the National Air and Space Museum, the National Museum of Natural History/Museum of Man, the National Zoological Park, and the South Group building manager (Smithsonian Institution and Arts and Industries buildings). Increases are sought also for specific items for the Smithsonian Tropical Research Institute and the Radiation Biology Laboratory. The proposed resources will meet the following needs:

-- Office of Plant Services (OPlantS) (+\$500,000) - Funds are needed to correct a base shortage for supplies and equipment used in the operation, maintenance and repair of 11 museum and art gallery buildings and a number of other work and storage areas located in the Washington metropolitan area. Despite an increase granted in the past year, this office continues to experience a severe base shortage for the purchase of essential supplies. Experience during the past two years has shown that large sums have been reprogrammed from research, exhibitions and collections management programs of museums and research organizations in order to defray this base shortage. Such reprogrammings are damaging to these programs. Furthermore, the uncertainty of fund availability makes it difficult for OPlantS to plan and schedule work. A substantial additional amount would enable OPlantS to perform its basic services without drawing upon resources that were appropriated for programmatic areas.

-- Office of Plant Services (+\$340,000) - These additional resources are required to supplement staff resources available for painting and plastering by contracting for additional services in this area, which continues to experience excessive backlog; to supplement staff resources by contracting for such services as equipment repair and reconditioning, pipe insulation, and electrical repairs; and to substitute contractual services for in-house custodial services at several locations. Custodial positions freed up by the substitution of contractual services will be reprogrammed to meet critically needed trade and craft positions which are most cost effective when performed by full-time Smithsonian staff.

-- National Museum of Natural History/Museum of Man (+\$90,000) - Contractual services are needed for the maintenance of carpeting in exhibit halls and the oak flooring of the Special Exhibits Gallery.

-- National Zoological Park (+\$150,000) - Contractual services are necessary to add needed support during high visitation summer months in the areas of grounds maintenance, custodial services, and heating and air conditioning repair.

-- National Air and Space Museum (+\$170,000) - Replacement of worn-out carpets, benches and cleaning equipment is necessary due to the Museum's heavy visitor traffic.

-- Radiation Biology Laboratory (+\$15,000) - A temperature, light and air moving alarm system is necessary to warn the facilities manager that environmental control chambers, deep freezers, refrigerators, or air handlers are not functioning properly, thereby preventing the loss of weeks or months of scientists' experimental efforts.

-- Smithsonian Tropical Research Institute (STRI) (+\$20,000) - Funds are requested for replacement and repair of kitchen equipment. The kitchen, located on Barro Colorado Island, serves STRI's resident scientific staff as well as approximately 1,100 visiting scientists and students each year.

-- South Group Building Management (which consists of the Smithsonian Institution and Arts and Industries buildings) (+\$60,000) - As a result of the creation of additional exhibit space and the remodeling of large offices into more numerous small ones, additional demands have been placed on this office. Resources are needed to provide contractual services for the cleaning and repair of carpets and gallery floors and to fund equipment replacement.

CURRENT SERVICES DECISION PACKAGE 7
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Automation. Recognizing the importance of making the best possible use of our staff in stringent economic circumstances, the Institution is requesting an amount of \$1.08 million for the purchase of updated equipment and computer time. Such equipment will increase the productivity of existing staff while holding down the need for additional personnel in FY 1983 and subsequent years.

			1983	
<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	122,478	135,086	1,080	150,070
Outlays (\$000)	120,740	133,861	1,050	148,430
Full-time equivalent employment (workyears):				
Full-time permanent	3,227 pos. (revised)	3,225	-	3,613
Total	3,636 pos. (revised)	3,525	-	4,014

Impact on objectives:

Resources sought in this package will streamline library operations; facilitate and improve research programs; modernize collections management by automating the registrarial function of the National Museum of Natural History/Museum of Man and by expanding the capabilities of the Smithsonian Institution Archives; and provide for strengthened administration through additional computer usage.

Other information:

The proposed new funds will permit the Smithsonian Institution Libraries to establish an integrated computerized system covering all phases of library operations. Additionally, resources sought here will be used to institute a general laboratory and test equipment replacement program at the Smithsonian Astrophysical Observatory; to enhance research capabilities at the Smithsonian Tropical Research Institute and the Radiation Biology Laboratory; to replace outdated equipment used for scientific applications by the Office of Computer Services; and to automate the registrarial function at the National Museum of Natural History. Other needs addressed in this package are the elimination of a base deficiency associated with expanded computer usage in the Accounting Office;

the management of data being added to the Smithsonian Institution Archives' automated systems; word processing and microfilm requirements of the Radiation Biology Laboratory and Anacostia Neighborhood Museum; and computerization of administrative functions of the Smithsonian Institution Traveling Exhibition Service. The detail of the request follows:

-- Smithsonian Institution Libraries (+ \$533,000) - The Smithsonian Institution Libraries (SIL), a system of 36 branch libraries and collections, serves the Institution and the public through support of Smithsonian bureaus, direct participation in the building of national bibliographic networks, and programs of publications, exhibition, loans and information services. Fundamental to SIL planning is the growing national realization that electronic technologies have advanced to the stage where they will permit major improvements to the total range of library services while at the same time hold down the need for additional staffing.

At present the SIL uses six independent sets of automated systems. These include the national cataloguing (inventorying) base referred to as the OCLC (to which SIL adds its current cataloguing), the conversion of OCLC computer tapes to microfiche by the New York Public Library, an acquisition system developed by our Office of Computer Services, which produces book and journal purchase orders and handles fund accounting, on-line searching of commercially available data bases (part of SIL's reference service), a word processor for administrative purposes, and telefacsimile transmission of library materials between branch libraries. (For technical reasons, this last system must remain an independent system in the foreseeable future.) These systems together only begin to provide library users with advances in information retrieval that is available today and only begin to automate the costly clerical processes necessary in libraries. Furthermore, each of the automated systems currently in use (except for conversion to microfiche) is a separate system, without the ability to share data with the others. Each requires separate computer hardware.

Computer technology is now available that will combine the first five of the six independent systems now in use into one central system, and by doing so, eliminate costly duplication and free existing staff from clerical tasks to professional information retrieval. The integrated system will consist of a centrally managed computerized data base (catalogue) that can be searched in locations throughout the Institution using computer terminals and printers and that also will allow for the transmission of data electronically directly back to the user. These data will consist of citations, excerpts, articles or eventually complete texts. Links will exist to the national cataloguing and reference data bases and to Smithsonian offices, and there will be provisions for word and data processing. In essence, a single system will accommodate all library services ranging from acquisition, cataloguing, information retrieval, transmission of library data between branch libraries and management information services such as fund accounting and usage reports.

Funds provided in FY 1982 (\$195,000) allowed a start on this system in the form of automating serials of union catalogue information, converting card catalogue records to machine readable form, renting computer based reference services, and adding terminals in branch libraries. The amount of \$533,000 sought in FY 1983 will permit the acquisition of computer software and hardware for complete cataloging and information retrieval. A further \$267,000 is expected to be requested in FY 1984 and FY 1985 for purchase of telecommunications equipment for transmission of data to additional locations throughout the Institution.

-- National Museum of Natural History/Museum of Man (+\$60,000) - Presently, the registrarial function of the National Museum of Natural History including record keeping of accessions, loans, and deaccessions is done with manual records. This is unsatisfactory in that substantial paperwork (with attendant delay) is required before items are identified for loan or relocation. The impending move to the Museum Support Center heightens the need for improved responsiveness in the retrieval of items in the collections so that they may be moved to and from the Center without delay. Automation of the function through a computerized network will resolve problems of responsiveness and modernize the registration process. An estimated amount of \$105,000 (with \$60,000 requested in FY 1983 and the balance expected to be sought in future years) is needed for the purchase of two time sharing terminals, a high speed terminal/printer, a data entry computer and eight terminals, and various other communication equipment.

-- Smithsonian Astrophysical Observatory (SAO) (+\$175,000) - SAO presently has approximately 1,700 items of general laboratory and test equipment with a total replacement value in excess of \$2 million. The equipment consisting of such items as voltmeters, oscilloscopes and spectrum analyzers is used in all laboratory and experimental programs, including detector, maser and laser development. Since approximately 50 percent of this equipment is ten years old or more, many items have become obsolete and expensive to maintain and their use often results in inefficiencies and inaccurate measurements. In the past SAO acquired general laboratory equipment mainly from excess government property and from portions of grants and contracts. However, sponsoring agencies lately are restricting the use of grant and contract funds for purchase of general laboratory equipment while the quality of excess government property has declined substantially. To remedy the situation, an amount of \$175,000 is sought for SAO to establish a continuing formal program for replacement and upgrading its general laboratory and test equipment.

-- Smithsonian Institution Archives (+\$15,000) - These funds will be used to manage the increasing volume of data being added to the Archives' automated systems and to increase the availability of the systems through additional equipment and programming.

-- Office of Computer Services (+\$77,000) - Eleven year old plotting equipment used for scientific applications such as geographic maps, anthropological excavation site maps, digitized specimen research, and for production of scientific and administrative charts and graphs used in conferences and publications has been difficult and expensive to maintain and must be replaced. Funds also are sought for contractual computer programming so that requested computer applications may be developed in a more timely manner and for purchase of computer software packages used to assist scientific and administrative work.

-- Accounting Office (+\$100,000) - Management needs and legislated requirements (such as the Civil Service Reform Act) have contributed to the need for increased complexity and detail in financial record keeping and reporting. Efforts designed to improve cash management through the efficient processing of accounts payable, to integrate payroll and personnel data, and to provide detailed data on fund usage are dependent upon computer processing. These increased requirements have contributed to a large deficit, which with the development of additional affirmative action and human resource applications is projected to total \$100 thousand by 1983.

-- Smithsonian Tropical Research Institute (STRI) (+\$25,000) - The Smithsonian Tropical Research Institute covers an area of approximately 13,200 acres with five separate research centers apart from the central offices. The funds being sought will provide for the purchase of two mini-computers with disc storage units, printers, CRT display terminals, and software for statistical analysis and data plotting. This equipment will be used to enhance research design and execution by providing correction statistical feedback at STRI research field sites, primarily at Barro Colorado Island and the NAOS Marine Laboratory. These essentially portable assemblages could be relocated to wherever there is a demand associated with particular research.

-- Radiation Biology Laboratory (+\$25,000) - State of the art data acquisition equipment is needed to improve the speed, precision and significance of long-term plant growth experiments under rigidly controlled environmental conditions. Such equipment includes a MINC-23 data acquisition system and an Anarad infrared gas analyzer. Additional units will be required in subsequent years.

-- Radiation Biology Laboratory (RBL) and Anacostia Neighborhood Museum (ANM) (+\$45,000) - Enhancements to RBL's word processing system would provide additional capability for editing complex scientific manuscripts, a library for frequently used texts and letters and a dictionary of scientific terms. The purchase of a word processor by the ANM will facilitate the preparation of exhibit scripts, manuscripts for publication and exhibit labelling. Microfilm equipment, also for the ANM, will permit the filming of the many documents borrowed by the Museum for future reference.

-- Smithsonian Institution Traveling Exhibition Service (SITES) (+\$25,000) - Automation of a variety of administrative activities, such as the over 600 bookings of approximately 130 exhibitions, the scheduling of shipping and the development of analyses of shipping patterns will result in lowered shipping costs and improved record keeping, including invoicing and customer history. Such computerization eventually will allow SITES to schedule more exhibitions and increase overall efficiency.

CURRENT SERVICES DECISION PACKAGE 8
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Collections Management. Resources in this package (\$431 thousand) will be used to meet the collections management requirements of the Smithsonian Institution Libraries, the National Zoological Park, the National Museum of American History and the Archives of American Art, including remedial action to correct conservation and collections storage needs.

		1983		
<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	122,478	135,086	431	150,501
Outlays (\$000)	120,740	133,861	419	148,849
Full-time equivalent employment (workyears):				
Full-time permanent	3,227 pos. (revised)	3,225	-	3,613
Total	3,636 pos. (revised)	3,525	-	4,014

Short-term objectives:

-- To provide necessary care for the collections by improving storage spaces and upgrading conservation and preservation facilities.

-- To contract for services for the conservation of a large number of special items that are urgently in need of care.

-- To continue the Collections Management/Inventory Program at the National Museum of Natural History/Museum of Man, National Museum of American History, Cooper-Hewitt Museum and elsewhere in the Institution.

Other information:

The collections management function is a broad category that encompasses various aspects of the care of the collections. These consist of detailed record keeping or cataloguing, regular inventories, storage or display in secure and atmospherically controlled environments and conservation of the objects in the collections.

It is worth noting here that the progress of the Institution's Collections Management/Inventory Program has been excellent. The inventory program was accelerated in FY 1979 with an appropriation of \$500 thousand. These funds were applied mainly to major inventory projects in three museums, the National Museum of Natural History/Museum of Man, the National Museum of American History and the Cooper-Hewitt Museum. Appropriations were made in FY 1980 and FY 1981 to continue these accelerated inventory efforts at the three museums; to computerize the inventory of the "Smithsonian Art Index" at the National Museum of American Art (NMAA); and to provide additional data processing capability for the vast amount of inventory information. A further program increase of \$200 thousand for FY 1982, pending before the Congress, will enable the National Museum of Natural History/Museum of Man (NMNH/MOM) and the National Museum of American History to complete their basic inventories in 1983 and to assure that these museums will have complete inventory control over the collections that are scheduled to be transferred to the Museum Support Center.

Inventory work at NMNH/MOM is 59 percent completed. Over three-quarters of the specimens of high intrinsic value at this museum have been checked. Several collections of valuable objects have been inventoried including furs, eggs and nests, gems and minerals, and marine animals. NMNH/MOM expects the inventory of type specimens to be about 90 percent complete by the end of FY 1982. The National Museum of American History holds a collection of 16 million items. Approximately 53 percent of its collection is inventoried. The inventory at the Cooper-Hewitt Museum is 74 percent complete with 133 thousand of 175 thousand objects in its collection having been inventoried. The "Smithsonian Art Index" at NMAA now contains in excess of 9,000 records representing 207 thousand objects. When completed this index will be an invaluable reference of art works held in Smithsonian museums that are not devoted primarily to art. Information already is being used extensively to respond to queries coming from both within and outside the Institution.

The collections management function continues to be a high priority of the Institution for FY 1983. Additional resources of \$431 thousand are sought for the purchase of scales and medical supplies, a mobile filing system and conservation equipment and supplies; for rental of atmospherically controlled space for collection storage; and for contracting for specialized conservation services for several museums and bureaus. These resources will be applied as follows:

-- National Zoological Park (+\$60,000) - Digital scales are needed for use in the great ape area, the Elephant House, the lion and tiger facility and the bear line area. Presently, the Zoo owns only one such scale, and because of its size, it is extremely time consuming to transport it from one location to another. The scale is used for frequent measurements necessary for health care of the animal collection. Additional resources would allow several of these type scales to be purchased and placed at needed locations and kept there on a permanent basis. In addition, the Zoo is seeking resources to purchase medical supplies for the hospital facilities at Rock Creek and at the Conservation and Research Center at Front Royal, Virginia.

-- Smithsonian Institution Libraries (+\$130,000) - The rental of an atmospherically controlled environment for collection storage is needed to promote the preservation of the library collections. Since the central and branch libraries are badly overcrowded, books are being moved to the facility at 1111 North Capitol Street. These materials are deteriorating rapidly because of the lack of air conditioning and humidity control to restrict the moisture content in the air. Structural improvements to this area are not permitted due to the General Services Administration's restrictions regulating the amount of renovation that may be done to the North Capitol Street rental facility. For this reason, and due to the lack of space for collection storage projected after FY 1981, a better equipped facility is needed. Resources to acquire suitable rental space and to purchase the necessary shelving is requested.

-- National Museum of American History (+\$124,000) - The purchase of security files and supplies, equipment, including numbering machines, and conservation supplies such as acid-free materials for the safe storage of paper currency is needed to house and protect the philatelic and numismatic collections. The Museum also seeks resources to obtain contract services required for special conservation problems of such collections as archival documents; musical instruments; and early and experimental synthetic materials, mainly plastics; and to purchase storage supplies and materials required for the proper care of collections. The volume of work needed to be done in the near future to conserve these collections exceeds the capability of the Institution's conservation laboratories. In addition, some items, namely the musical instruments, require continual inspection by a specialist.

-- Archives of American Art (+\$117,000) - The purchase of a mobile filing system to replace the stationary system being used would permit additional storage capacity of approximately two million paper documents. Additionally, resources are requested to purchase equipment; conservation supplies, including acid-free boxes, folders and tissue paper; and steel document cases where, for example, large drawings, watercolors and irreplaceable records will be stored. These steel cases will replace the cardboard cases that are deteriorating rapidly.

CURRENT SERVICES DECISION PACKAGE 9
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Exhibition support replacement. Resources included in this package (\$315 thousand) are sought to supplement several bureaus' requirements for exhibit support and free the Office of Plant Services to perform its primary function of building maintenance.

		1983		
<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000	122,478	135,086	315	150,816
Outlays (\$000)	120,740	133,861	306	149,155
Full-time equivalent employment (workyears):				
Full-time permanent	3,227 pos. (revised)	3,225	-	3,613
Total	3,636 pos. (revised)	3,525	-	4,014

Short-term objective:

-- Provide essential support in constructing exhibit areas for several museums through contract labor and services.

Other information:

The Office of Plant Services' (OPlantS) primary function is to operate, maintain, and repair the Smithsonian buildings and physical plant on and near the Mall. These responsibilities include the operation of the large and complex air conditioning, heating and ventilating systems; providing moving and warehousing services; maintaining the communication systems; and furnishing mail and transportation services.

In addition, OPlantS historically has provided the museums with some exhibit preparation support such as case fabrication, partitioning and electrical wiring for only the cost of materials used. Reimbursements for labor costs were not sought. However, in the past several years, the expense of mounting shows and exhibitions has increased dramatically forcing the museums to rely more heavily on OPlantS for this support. The end result has been the creation of a large and growing backlog in

buildings maintenance responsibilities. For instance, at the beginning of FY 1980 there were 97 repair projects awaiting completion; by the end of the year, the number had increased to 136. Due to reduced staff availability, the average time to accomplish a maintenance project also expanded from 148 to 195 days.

In order to alleviate this situation, limitations have been placed on the amount of support OPlantS will give to the bureaus in the area of exhibit preparation and other forms of program related assistance such as office relocation and space renovation. The reductions to support were based upon the hours of work devoted to exhibit projects in FY 1980. OPlantS will reduce exhibit and program support in FY 1982 by eight workyears and in FY 1983, by six additional workyears.

Since OPlantS charged only for materials and not for labor, museums presently do not have sufficient base funds for contractual services for exhibits preparation. Exhibitions are an essential part of the Smithsonian's basic goal of increasing and diffusing knowledge, and the museums must find other means to continue their exhibitions programs. Several museums have depended upon OPlantS for preparation of their major exhibitions; some have as many as four exhibitions a year. Such presentations as "Murals Without Walls: Arshile Gorky's Aviation Murals Rediscovered" at the Hirshhorn Museum and Sculpture Garden and "The Art of George Catlin" at the National Museum of American Art were supported by OPlantS.

Funds of \$315 thousand will allow the National Museum of Natural History/Museum of Man, Hirshhorn Museum and Sculpture Garden, National Museum of American Art, National Portrait Gallery, National Museum of American History, and Folklife Program to maintain their current level of committed exhibitions for FY 1983 by contracting for fabrication and installation services.

CONSTRUCTION DECISION UNIT

Smithsonian Institution

(0129)

Construction: 33-(0132)-0-1-503

(0133)

Introduction:

The Smithsonian's facilities consist of 12 museum and gallery buildings in Washington, D.C. and New York City housing a wide range of exhibitions in the fields of science, history, technology and art, as well as research and collections management activities. These facilities range in age from new to well over 100 years old. In addition, the Institution operates and maintains a National Zoological Park on 156 acres in Rock Creek Valley with an associated conservation and research center near Front Royal, Virginia; the preservation, storage, and air spacecraft display facility at Suitland, Maryland which is also the construction site of the Museum Support Center; centers for biological research, conservation and education in Panama and on the Chesapeake Bay in Edgewater, Maryland; a center for astrophysics in Cambridge, Massachusetts, and an observatory on Mt. Hopkins in Arizona; and a number of administration, storage, reference, distribution, and other support facilities located primarily in leased space. The Smithsonian maintains almost all of the properties which it holds, and substantial work is required to keep them in good repair. The needs and demands are multiple. For example, the museums should be places where visitors derive pleasure from viewing the collections and learning about what they symbolize or what they can tell us about our own history. Over 27 million visits to the Smithsonian museums and the National Zoological Park are recorded each year. In order to promote a sense of welcome and a desire to discover, the physical condition of the given museum must be good. The Institution also has the legal responsibility to serve as the official repository of the National Collections (20 U.S.C. 41, et seq.), and, as such, must maintain a proper environment for art objects, live animals, natural specimens, and artifacts. Visitors and staff safety and security also demand that facilities be in proper repair. The Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.) requires all employers to assure that their work places conform to certain safety and health standards. Several Smithsonian buildings are included on the National Register of Historic Places, which imposes a special responsibility under the provisions of the National Historic Preservation Act to insure that they are preserved in a manner consistent with their status. Greater awareness and attention to the needs of disabled persons, as reflected in the enactment of recent legislation, have resulted in the establishment of additional requirements for all of the Institution's facilities in order to make them more accessible to all visitors and staff. Finally, new program objectives or research needs at the Smithsonian's outlying facilities present additional requirements for repair and renovation work. By maintaining and developing these facilities, the Smithsonian can continue to be in the forefront of research in several major fields of study.

Long-range goals:

-- To maintain a physical plant containing adequate and secure space in an environment that provides stable temperature and humidity conditions for proper conservation, housing, display, and study of the National Collections, and that ensures the safety, security, and accessibility of the public and staff who visit or who work in these facilities.

-- To complete the Master Plan for the National Zoological Park approved by the Commission of Fine Arts and the National Capital Planning Commission in FY 1973.

-- To complete the development plan for the Front Royal Conservation and Research Center.

Major objectives:

-- To correct structural and systems deficiencies in a physical plant containing over 3.0 million net square feet, with buildings ranging in age from new to over 100 years with a replacement value of over one billion dollars.

-- To promote energy efficiency and conservation.

-- To comply with legislative requirements on occupational health and safety and needs of disabled persons.

-- To plan for, and construct new facilities to meet the exhibitions, research and collections management needs of the Institution.

The performance of the following activities will ensure that these objectives will be met.

-- Major restoration and renovations, generally of a long-term nature and benefit to the Institution, which are beyond the capability of the Institution's maintenance staff. These projects include repairs to roofs and building exteriors, repairs and alterations to utility systems to provide improved, energy efficient environments within the buildings, and other repairs and improvements of a more general nature.

-- Continued development and execution of comprehensive fire protection master plans and installation of fire detection and suppression systems.

-- Provision of access for disabled persons, correction of unsafe conditions and installation of security equipment for a proprietary alarm system. This category includes projects that will provide greater security, health, and safety for the collections, as well as for the visiting public and staff, and facilities modifications to mitigate or eliminate existing architectural barriers.

-- Modifications of facilities to meet program objectives, such as the development of the Smithsonian Astrophysical Observatory at Mt. Hopkins, Arizona, improvements to collection storage buildings at Suitland, Maryland, construction of an addition to the Anacostia Neighborhood Museum's exhibits laboratory, and improvements to the Smithsonian Institution Libraries in the Natural History Building.

-- Design of a major exhibit included within the Zoo Master Plan.

-- Continued development of the Front Royal Conservation and Research Center with the construction of a hospital, a quarantine facility and a primate facility.

Alternatives:

1. Provide no additional space. This alternative would seriously impair and disrupt planned and current programs and activities of the Institution that are fundamental to its research, exhibition and educational missions.

2. Significantly increase rental space. This approach would be costly on a long-term basis and would be subject to inflation and other cost-escalating factors. Scattered locations would increase logistical support and protection costs and would require duplication of staffing and associated laboratory and other support spaces. Moreover, it is likely that extensive modifications would be necessary to adapt leased space for the unique space and environmental needs associated with collections storage, conservation and research.

3. There is no alternative to performing necessary repairs and improvements to Smithsonian facilities. Failure to improve the physical plant will endanger the well-being of the collections, the visiting public and the staff; result in costly operating inefficiencies and increased energy consumption as building systems (electrical, plumbing, heating, ventilating, and air conditioning systems) cease to function properly; result in the deterioration of building exteriors; contribute to a gradual degradation in the appearance of the buildings, and make it impossible to comply with existing legal requirements pertaining to occupational health and safety and accessibility for disabled persons.

4. Regarding the performance of work, there are two alternatives: 1) accomplish the work entirely by contract, and 2) use Smithsonian labor to perform all or certain aspects of the work. Most routine repairs are performed by the Office of Plant Services for Mall museums and by the Zoo's own maintenance staff at the Rock Creek Zoo and Front Royal Conservation and Research Center. Construction and improvement work is accomplished primarily by contract except in instances when suitable contractors cannot be located, or their estimates are exorbitant in relation to the proposed job. In such instances, accomplishment of the work by other means such as the purchase of supplies, materials, and equipment and/or use of current staff or temporary labor, is the most economical

alternative. Furthermore, it is necessary occasionally to fund other expenses from this account, particularly those at the Zoo associated with the displacement of animals as a result of the construction program or major grounds maintenance in repair of storm damage.

Accomplishments:

-- Restoration and Renovation of Buildings - Significant progress has been made in strengthening the Restoration and Renovation of Buildings program to assure the maintenance, preservation and development of the Institution's facilities. During the next five years, special emphasis will be given to improving the efficiency and reliability of heating, ventilating and air conditioning systems, as well as to repairing and renovating building exteriors. The improvement of fire protection systems will continue, as will projects designed to provide a more safe and accessible environment for visitors and staff.

Facade, roof and terrace repairs. In July 1981, the Commission of Fine Arts and the Joint Committee on Landmarks approved the Institution's selection of precast architectural concrete as the best replacement material for the Renwick Gallery facade renovation. The first major construction phase will begin in FY 1982. This phase, which includes production of latex molds, plaster models and actual casting molds, is expected to take eighteen months. During FY 1981, planning and design for the renovation of the Arts and Industries Building exterior were completed, and a construction contract was awarded for the replacement of a section of the northwest range roof. During FY 1982, a contract will be awarded for the next major construction phase; planned work on the Building's northeast range includes the removal and replacement of existing roofing, flashing and underlayments; removal of abandoned or non-original elements; the replacement of the roof drainage and guttering systems; window repairs; and masonry repointing. Additional major projects planned for FY 1982 include: recaulking and repointing the facades of the American Art/Portrait Gallery and the American History Buildings; and cleaning and sealing the Hirshhorn Museum's facade.

Fire detection and suppression systems. In FY 1982, progress will continue in upgrading the fire protection systems at the American History Building and at the Natural History Building. During FY 1981, in the American History Building, construction began on the installation of a fire wall on the first floor, and fire protection systems were installed in the Ice Cream Parlor and in the George Washington exhibit. At the Natural History Building, nearing completion in FY 1981 are the installation of sprinkler and smoke detection systems in the east and west wings. Other projects scheduled for FY 1982 include: installation of additional smoke detectors in the Arts and Industries Building; installation of a sprinkler system at the Chesapeake Bay Center; and a study to determine the fire protection requirements on Barro Colorado Island at the Smithsonian Tropical Research Institute in Panama.

Access for the disabled, safety and security and correction of hazardous conditions. In FY 1981, analysis and planning for the conversion to an Institution owned and operated electronic security and fire alarm system will be completed. Construction for the first phase of this project

will begin in FY 1982. The first phase will provide a prototype system for the Museum Support Center with a communications tie-in to the Mall. The system will be expanded over the next ten years to all facilities in the Washington Metropolitan Area. In FY 1981, design was completed for the removal of asbestos insulation in the Natural History Building cabinet shop and in attic spaces of the American Art/Portrait Gallery Building; during FY 1982, the removal of asbestos will begin at the American Art/Portrait Gallery Building and will be completed in the cabinet shop. Safety improvements will be undertaken in FY 1982 at one of the Museum of American History's storage buildings at the Suitland facility. These improvements will eliminate an asbestos hazard and will provide for fire protection and improved thermal stability.

Utility systems repairs and improvements/energy conservation. Significant progress was made during FY 1981 in planning for the major renovation of heating, ventilating and air conditioning (HVAC) systems in a number of the Institution's buildings. The implementation of these plans during the next five to ten years will provide energy-efficient operating systems that are capable of maintaining environmental conditions necessary for the protection of the collections. Accomplishments during the past year include the initiation of comprehensive HVAC and energy studies for the Natural History, American History, and Arts and Industries Buildings; initiation of an energy study for the Air and Space Building; the completion of design for the replacement of twelve air handling units in the American History Building; and the installation of a new HVAC system for the Baird Auditorium in the Natural History Building. Detailed drawings and specifications for the American Art/Portrait Gallery HVAC renovation project are nearing completion, and the first major construction phase for the Freer Gallery HVAC renovation began. Continued progress on these phased projects is planned for FY 1982. Other major projects planned for FY 1982 include the first phase of renovating the electrical wiring in the Smithsonian Institution Building and the initiation of an energy study at the Hirshhorn Museum.

Other projects. At the Mt. Hopkins Observatory in Arizona, safety improvements for .7 miles of the single lane access road were completed in FY 1981; improvements for an additional 2.2 miles will continue in FY 1982. At the Smithsonian Tropical Research Institute in Panama, design for a new library at the Tivoli site was completed and construction is expected to begin in FY 1982; also in FY 1982, a comprehensive survey of all the Institute's buildings and utilities systems will be conducted. This information will be developed into a master plan of facilities improvements and changes needed to meet the Institute's operational requirements effectively and safely.

-- The National Zoological Park - Construction at the Rock Creek Park continues to follow the Master Plan guidelines. In FY 1981, a number of construction and renovation projects were completed including: the Reptile House which will reopen to the public in the Fall; the new Great Ape House which provides orangutans and gorillas with a controlled interior environment and spacious exterior yards; and the Small Mammals Building which is scheduled to reopen in the Fall. The construction phase of the Monkey Island Exhibit is expected to be completed in FY 1982. This is the final major project in the central area complex. At the Front Royal Conservation and Research Center construction will continue in FY 1982 on the Small Mammal Building. This complex will be used for small mammal breeding, and will provide research/health facilities and a backup holding space for the

Rock Creek collection. Small mammals and birds, such as giant armadillos, flying lemurs, Palawan peacock pheasants, and the Bali mynah will be transferred to the complex.

Activity description: For FY 1983, resources of \$15.691 million are requested for restoration and renovation of the physical plant; and for construction projects at the National Zoological Park.

The Restoration and Renovation of Buildings Appropriation account (R&R) is used to fund building repairs, alterations and improvements, as well as the construction of additions to existing facilities and minor new facilities. The total request for the R&R account in this package is \$11.971 million. This request, which builds on the Smithsonian's amended appropriation request of \$7.5 million in FY 1982, reflects the Institution's continuing strong commitment to address the needs of a large and diverse physical plant. The R&R request is divided into the following six categories: general repairs and improvements; facade, roof and terrace repairs; fire detection and suppression systems; access for the disabled, safety and security and correction of hazardous conditions; utility systems repairs and improvements/energy conservation; and other projects in support of programmatic needs.

For the period of FY 1983 - FY 1987, the Institution has identified important needs in these categories that are estimated to cost approximately \$60.0 million. The FY 1983 request is intended to address those needs in a realistic and systematic way so that the work will be accomplished efficiently in accordance with established priorities.

Energy conservation is supported by Restoration and Renovation resources, particularly where funds are applied toward improving the efficiency of building utility systems and toward maintaining building exteriors.

The National Zoological Park Construction and Improvements account is used to continue to make progress on the approved Master Plan for the improvement of the animal and the public facilities and to perform essential renovation, repair and improvement projects at the Rock Creek Park Zoo and at the Conservation and Research Center in Front Royal, Virginia. Additionally, a development plan for the Front Royal Conservation and Research Center has been established. Under this plan, adequate housing will be provided for the animals along with a quarantine facility and a hospital. The total request for the Zoo construction account in this package is \$3.720 million. The requested funds will be used for the design of one of the exhibits under the Master Plan, the Olmsted Walk Exhibits, and also to develop a program for Master Graphics. Also, Zoo funds are sought for the final design phase of a Small Mammal Building, and for the construction of a veterinary hospital, quarantine facility and primate facility at the Front Royal Conservation and Research Center. Funds are requested for necessary restoration and renovation work both at Rock Creek and Front Royal.

Planned projects in this decision package include the following:

General repairs and improvements. Essential maintenance and repairs will be funded from this category, including pier repairs and elevator repairs, sidewalk and road repairs, exterior door maintenance, lighting improvements, and other similar projects. Also, there is a provision for emergency repairs such as equipment failures or unanticipated structural defects arising from heavy use, extreme weather conditions, or other circumstances.

Facade, roof and terrace repairs. The phased renovations of the Renwick Gallery facade, the Arts and Industries roof and exterior, and the Air and Space Building's facade, roof and terrace will continue. Repairs to the Cooper-Hewitt Miller House facade will begin. Caulking and pointing of the Natural History Building facade will begin and will be completed for the American History Building. Exterior doors of the American History Building will be replaced, and design for the Building's roof replacement will be completed. Exterior wood painting at the American Art/Portrait Gallery Building and the Smithsonian Institution Building will be accomplished, and the skylights at the Freer Gallery will be repaired. Repairs to the tower facade at the Smithsonian Institution Building and to the Natural History Building's entrance gates will be made, and replacement of the Renwick Gallery's windows will begin.

Fire detection and suppression systems. The phased implementation of fire protection master plans for the American History Building and the Natural History Building will continue. Based on the recommendations of a study to be performed in FY 1982, fire protection improvements for the Smithsonian Tropical Research Institute's Barro Colorado Island facilities will begin. Additional smoke detectors and sprinklers will be installed in the American Art/Portrait Gallery Building, the Freer Gallery Building, the Arts and Industries Building, the Smithsonian Institution Building, and at the Chesapeake Bay Center.

Utility systems repairs and improvements/energy conservation. The maintenance, repair and renovation of the Institution's heating, ventilating and air conditioning (HVAC) systems, and electrical and plumbing systems will be funded from this category. Advances will continue to be made in the major renovation of HVAC systems in the American Art/Portrait Gallery Building, Arts and Industries Building, and American History Building. Repairs to building operating equipment at the Cooper-Hewitt Museum and at the Renwick Gallery will be accomplished. Renovation of the Freer Gallery's HVAC system will be completed. The modernization of these systems also will promote energy efficiency. Energy conservation projects at the Hirshhorn Building and the Air and Space Building will continue. The electrical wiring renovation project for the Smithsonian Institution Building also will continue. Plumbing repairs are scheduled for the American History Building, and the upgrading of the water and sewage system at the Smithsonian Tropical Research Institute's Barro Colorado Island facilities will continue.

Access for the disabled, safety and security and correction of hazardous conditions. The phased installation of equipment for the Institution's proprietary security and fire alarm system will continue. Work area safety improvements in the American History Building, Air and Space Building and

the Natural History Building will be accomplished. The phased removal of asbestos insulation in Smithsonian facilities will continue. Restrooms in several facilities will be modified to improve access for the disabled.

Other projects. The following phased projects will continue in FY 1983: safety improvements to the hazardous, single lane access road at the Mt. Hopkins Observatory, in Arizona; renovation of the Smithsonian Institution Libraries areas in the Natural History Building; and upgrading of the Museum of American History's storage buildings in Suitland, Maryland. The Exhibit Laboratory Building at the Anacostia Neighborhood Museum will be expanded to provide much needed space for storage and exhibit operations; a 1900 square foot addition to the existing building will be designed and constructed. In the area between the Smithsonian Institution and Arts and Industries Buildings along Jefferson Drive, the walkways and garden will be upgraded.

National Zoological Park Construction. Construction at the National Zoological Park will continue to follow the guidelines established within the Rock Creek Master Plan and the Front Royal development plan. At the Rock Creek Park Zoo, \$450 thousand is sought for the design of the Olmsted Walk Exhibits project. Funds of \$4.0 million are expected to be sought in FY 1985. The Olmsted Walk Exhibits will be a series of small exhibits beginning at the Zoo's Connecticut Avenue entrance and proceeding along the central walkway which will complement the major exhibit areas. An amount of \$50 thousand is requested for the Master Graphics project which is the information portion of the construction program. This project will develop education and information signs, maps and other visitor aides throughout the Park. For the Front Royal Construction and Research Center, an amount of \$1.84 million is requested to construct a veterinary hospital, a quarantine facility and a primate facility. An additional \$80 thousand is requested for the final design phase of the Small Mammal Building. (Funds of \$700 thousand to complete the construction of this facility are expected to be sought in FY 1984.) The amount of \$1.3 million is requested for essential mechanical, structural, electrical, utility and plumbing repairs, and ground and roadway improvements for the Front Royal and Rock Creek facilities.

Rock Creek Facilities:				1983
<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>Request</u>	
Budget Authority (\$000)	15,829	8,650	15,691	
Outlays (\$000)	18,265	26,408	15,790	
Full-time equivalent employment (workyears)				
Full-time permanent	-	-	-	
Total	12 pos. (revised)	13	13	
	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Budget Authority (\$000)	16,375	28,750	29,399	17,680
Outlays (\$000)	14,836	23,404	27,716	20,553

Short-term objectives:

- Ensure the basic operation of all Smithsonian facilities.
- Perform necessary facade, roof and terrace repairs to maintain facilities in a weathertight, energy efficient condition.
- Continue progress in the development and execution of fire detection and suppression master plans.
- Promote the safety and security of visitors, the collections and the staff, and continue to improve access for the disabled to Smithsonian facilities.
- Progress toward renovation of the heating, ventilating and air conditioning systems of several major museums to provide better control of temperature and humidity conditions and to assure energy efficiency and conservation.
- Continue construction at the Zoo in line with the Rock Creek Master Plan and the Front Royal development plan.

Impact on major objectives:

- The physical plant will be maintained at a level necessary to sustain current program activity.
- Through repairs to facades, roofs and terraces and renovation of heating, ventilating and air conditioning systems, energy efficiency will be encouraged and a safer environment for the collections will be ensured.
- Major improvements will be made toward improving security, correcting occupational health and safety hazards, and easing accessibility for disabled persons.
- Improvements to off-Mall facilities will be accomplished in support of the research and collections management needs of the Institution.

Other information:

-- In July 1980, the Institution formally established a comprehensive energy management program mindful of spiraling costs and shortage of energy resources. This program aims toward conserving and promoting more efficient uses of energy. A significant portion of the request in the Restoration and Renovation of Buildings Appropriation account bears directly on energy conservation and energy efficiency, specifically those projects related to renovation of heating, ventilating and air conditioning systems and to facade, roof and terrace repairs.

-- It is anticipated that all projects not funded at this level will be affected by the future impact of inflation.

-- The following projects will be funded at this level:

<u>Restoration and Renovation of Buildings</u>	(\$000)
General Repairs and Improvements	\$ 710
Facade, Roof and Terrace Repairs	4,515
Fire Detection and Suppression Systems	1,196
Access for the Disabled, Safety and Security and Correction of Hazardous Conditions	990
Utility Systems Repairs and Improvements/Energy Conservation	2,975
Other Projects:	1,585
Anacostia Neighborhood Museum - Exhibit laboratory addition (\$135)	
National Museum of American History - Improvements to Suitland, Maryland collections storage buildings (\$250)	
National Museum of Natural History - Smithsonian Institution Libraries renovation (\$400)	
Smithsonian Astrophysical Observatory - Access road (\$500)	
Smithsonian Institution Building - East Garden and Walkways (\$300)	
Subtotal, Restoration and Renovation	<u>\$11,971</u>

National Zoological Park, Construction and Improvements (\$000)

Rock Creek:

Olmsted Walk Exhibits	\$ 450
Master Graphics	50
Repairs and Improvements	1,000

Front Royal:

Small Mammal Building (design of phase 3)	80
Primate Facility	700
Quarantine Facility	500
Veterinary Hospital	640
Repairs and Improvements	300

Subtotal, National Zoological Park	\$ 3,720
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Total, All Construction <u>/1</u>	<u>\$ 15,691</u>
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/1 Does not include request of \$36,500,000 for Quadrangle development which is being submitted in a separate decision package.

QUADRANGLE DEVELOPMENT DECISION UNIT
Smithsonian Institution
Construction: 33-(0133)-0-1-503

Concept: For FY 1983, an amount of \$36,500,000 is requested for development of the Quadrangle, an area of approximately 4.2 acres located between the Smithsonian Institution Building and Independence Avenue. The central theme of this project is international peace through the promotion of inter-cultural understanding. Its financing has been planned as a joint enterprise between appropriated and nonappropriated funds. One-half of the total need of \$75,000,000 is sought through Federal appropriations; the balance will be provided from the Smithsonian's nonappropriated Trust funds and other sources, including donations from other governments, corporations and individuals. Proposed legislation authorizing construction will be submitted to the Office of Management and Budget in early October.

Development of the Quadrangle will provide a window on the Mall for Eastern and African cultures, representing two-thirds of the world's population and spanning an area from Japan and Korea, through Southeast Asia, the Middle East and Africa. The roots of these cultures run deep and are a pervasive force in the world. They are, however, little understood in our country. By relocating the Museum of African Art from its present Capitol Hill location and by adding a center for Eastern art, adjacent to the Freer Gallery of Art, the cultures of Asia, the Middle East and Africa will gain the prominence they deserve in the center of the Smithsonian complex. Other programs of public service will also be accommodated.

The design concept features two above-ground pavilions that are delicate in proportion and sensitive in style. These pavilions will offer appropriate entrances to a new Museum of African Art and a new center for the exhibition of Eastern art and for Eastern studies in association with the Freer Gallery of Art. Major exhibit galleries, augmented by support facilities, will be located below grade in the area between the Arts and Industries Building and the Freer Gallery of Art. In addition to the pavilions, the entire above-ground area will be landscaped attractively to create within the Quadrangle a quiet garden enclave for the public.

The Museum of African Art's collection of sculpture, utilitarian objects, musical instruments, textiles, and jewelry is one of the most important in the United States. The legislative history of Public Law 95-414, which authorized the transfer of the Museum of African Art to the Smithsonian and was signed by the President on October 12, 1978, suggests that the Museum be moved from its present location on Capitol Hill. By providing a Mall site for African art, the Museum will gain visibility as an important national resource, will greatly increase its number of visitors, and will help the public gain a long overdue appreciation of the traditional art forms of African culture by means of

an expanded exhibition program that will be possible in the larger space available in the new building. The Museum's education program--including activities of elementary and secondary school children, continuing education groups, and undergraduate courses in cooperation with colleges and universities--will benefit greatly from the classroom facilities planned for in the Quadrangle. A move from its present quarters will provide for improved care of the collections in secure and environmentally controlled conditions, both of which are absolutely essential. There will also be improved accessibility to students and scholars.

The Freer Gallery of Art possesses one of the world's great collections of the art of China, Japan, and other cultures of the Middle East and South and East Asia. With the addition of the new center for Eastern Art which will afford sorely needed additional space and program flexibility adjacent to the Freer, the Gallery will become the nucleus of a larger complex for the study and exhibition of the art of the Near and Far East. The new center will attract important collections now in private hands, will encourage regular displays drawn from rich holdings of Eastern art in private and public collections in the United States, and will enable the Smithsonian to serve as host for special exhibitions sponsored by the governments of African, Asian and Middle Eastern nations. (Restrictions in the Freer will prohibit the display of traveling or loan exhibitions in the Freer building as well as loans from the Freer to other museums.) The new center also will provide greatly expanded facilities for individual research and will offer a wide range of educational services to the public. Moreover, specialists in the Freer's art studio and in its conservation laboratory, with additional space and improved work areas, will be able to attend to new collections as well as accommodate the growing number of qualified conservators who come to the Freer seeking advanced training and experience.

In addition to these major components, Quadrangle space also has been allocated for an international gallery and conference center for seminars and discussions on matters of intercultural understanding including those held by the Woodrow Wilson Center. Space also has been provided for the Smithsonian's public service and educational outreach activities which are now located in inadequate quarters. These activities include the Smithsonian Institution Traveling Exhibition Service and the Resident and National Associates programs for which the Quadrangle furnishes appropriate classrooms and a small auditorium.

Accomplishments:

--Legislation. Legislation authorizing an amount of \$500,000 for planning for the development of the Quadrangle (Public Law 96-36) was signed by the President on July 20, 1979. Amending legislation to raise the planning ceiling to \$1,000,000 is proceeding in the current session of the 97th Congress. On July 23 the Senate Committee on Rules and Administration favorably reported S.778 (Report No. 97-164) and also approved S. Res. 192, the budget waiver. It is anticipated that both measures will be taken to the floor in September.

The Committee on House Administration approved a companion measure, H.R.2632, on July 29. Its report, No. 97-218, was filed on August 4. It is expected that the bill will also be taken to the floor in September.

The House of Representatives and the Senate appropriations committee have approved the FY 1982 budget request of \$1,000,000 for Quadrangle planning. With the authorization and budget request virtually assured, fund-raising activities have been accelerated.

-- Fund Raising. Our fund-raising strategy is to continue to seek contributions from as many foreign governments and corporations as possible, as well as from domestic corporations and private individuals. To date, gifts and pledges of more than \$3,000,000 have been received. The governments of Japan and Korea have donated \$1,000,000 each, while efforts are underway to raise money from various Middle Eastern nations. A committee to concentrate on raising money in African nations is just now being formed.

On the domestic front, a corporate campaign has been operating over the past year under the leadership of William Anderson, who is Chairman of the NCR corporation and also former Chairman of the National Board of the Smithsonian Associates.

The success of fund-raising efforts to date can be attributed to the relationship between the Quadrangle development project and international understanding. President Reagan noted last spring when the President of Korea presented the Smithsonian with its gift of \$1,000,000 that this museum will further enhance intercultural understanding and appreciation between the people of America and the peoples of Asia. In May 1981, Prime Minister Suzuki of Japan, on the occasion of planting a tree near the site of the Quadrangle, remarked how Japan's gift would help to signify a new tradition of cultural understanding between our nations.

--Status of Approvals. With the approval of its Board of Regents, the Institution has used to date approximately \$1.5 million of its nonappropriated Trust funds to contract with outside firms to develop design concepts and preliminary drawings, a program of space requirements, and various engineering and construction data on existing conditions of the subsurface and adjacent foundations. The Institution currently is working with the architectural firm of Shepley, Bulfinch, Richardson, and Abbott and their engineering consultants.

All statements and information as required by the National Environmental Policy Act and the National Historic Preservation Act have been completed. A completed design concept was presented and approved by the Commission of Fine Arts on April 8, 1980, with similar action by the National Capital Planning Commission on January 8, 1981. The project has been included in the National Capital Planning Commission's recommended Federal Capital Improvements Program for FY 1982 through 1986. Tentative drawings are now being prepared. These are scheduled for review by the Commission of Fine Arts, the D.C. Joint Committee on Landmarks and the National Capital Planning Commission between September and November 1981.

Legislative Schedule and Construction Timetable:

The Institution plans to seek construction authorization for the project early in FY 1982. The present timetable for the Quadrangle calls for completing the detailed working drawings and specifications during FY 1982 and awarding a construction contract early in FY 1983. The construction period will be three years.

<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>1983 Request</u>
Budget Authority (\$000)	-	1,000	36,500
Outlays (\$000)	-	1,000	10,000
Full-time equivalent employment (workyears):			
Full-time permanent			
Total			

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Budget Authority (\$000)	-	-	-	-
Outlays (\$000)	20,000	6,500	-	-

SPECIAL FOREIGN CURRENCY PROGRAM DECISION UNIT
Smithsonian Institution
Special Foreign Currency Program: 33-0102-0-1-503

Introduction:

The purpose of the Smithsonian Foreign Currency Program is, like that of the Institution itself, "the increase and diffusion of knowledge." The Smithsonian's Special Foreign Currency Program supports this purpose by making grants in United States owned foreign currencies to United States universities, museums and other institutions of higher learning, including the Smithsonian itself, to conduct research projects in the so-called "excess" foreign currency countries. For FY 1982, the "excess" foreign currency countries are Burma, Guinea, India, and Pakistan. The Smithsonian supports research in archeology and related disciplines, systematic and environmental biology, astrophysics and earth sciences, and museum programs.

Long-range goals:

-- To continue the administration of a national grants program in excess foreign currencies that is responsive to the needs of the United States academic community, the Smithsonian, and the participating host countries.

-- To foster intercultural understanding by affording opportunities for United States and foreign scholars to collaborate on research programs in diverse disciplines and by providing continuity to existing United States institutions engaged in scholarship abroad.

Short-term objectives:

-- To provide continued funding for all academic disciplines which received funding in FY 1982, including new projects and continuation of new multi-year grants.

-- To add to the forward-funded reserve for the American Institute of Indian Studies.

-- To contribute to the international effort to salvage Moenjodaro.

Accomplishments:

The Smithsonian Foreign Currency Program anticipates making 75 grants to institutions in 21 states and the District of Columbia by the end of FY 1981. These include funding for continuing and new research projects, research development travel and limited conference and symposium support. The Institution anticipates maintaining a similar level of activity through FY 1983. Work in Burma, as in the past, will be limited but recent success in starting several projects indicates renewed interest on the part of the Burmese in establishing collaborative projects. Program activity will continue through FY 1982 in Egypt, Tunisia, Sri Lanka, Poland, and Yugoslavia where residual funds are being utilized until completely depleted. A total of 40 projects require continuation of multi-year funding.

Examples of recent accomplishments resulting from foreign currency projects are:

-- A major exhibition of medieval Egyptian artifacts, "The Renaissance of Islam: Art of the Mamluks," was developed to tour the United States for three years.

-- An international workshop on time and frequency, held in India, dealt with important communications such as global time synchronization using laser beams and geostationary satellites.

-- Continuing limnological analysis of Lake Ohrid, Yugoslavia is providing information for a management plant for the ancient lake which is being polluted with urban and industrial waste.

-- An innovative study in India is attempting to use linguistic evidence to answer questions concerning the prehistory of the subcontinent by examining relations between linguistic change and prehistoric events.

-- The study of modern pollen and of samples from ancient sediments of the Egyptian Western Desert is providing information on vegetation and lake histories, which is important to understanding the climatic patterns of the area.

-- Examination of broad populations of Punjabi youths for dental malocclusion is contributing important anthropometric data for the understanding of this dental problem which, like many chronic ailments, increases drastically with modern development.

Activity description: An appropriation of \$4.5 million equivalent in foreign currencies, which has been determined by the Treasury Department to be in excess of the normal needs of the United States, is requested in FY 1983. The appropriation will be used:

-- To continue a program of grants to United States universities, museums, and other institutions of higher learning, including the Smithsonian itself. These grants are primarily for field research and professional training in those countries where excess local currencies are available, mainly in India and Pakistan. Fields of study are in areas of traditional Smithsonian competence, including archeology and related disciplines, systematic and environmental biology, astrophysics and earth sciences, and museum programs. Funding of \$3.5 million equivalent in foreign currencies is sought for this purpose in FY 1983.

-- To support future programs of the American Institute of Indian Studies. An appropriation of \$500 thousand equivalent in Indian rupees is requested in FY 1983 to be added to the amount of \$500 thousand equivalent appropriated in FY 1980, the \$750 thousand equivalent appropriated in FY 1981 and the \$1 million being sought in FY 1982.

-- To contribute to the international effort organized through UNESCO to restore and preserve the Indus civilization city of Moenjodaro in Pakistan. An appropriation of \$500 thousand equivalent in Pakistani rupees is requested in FY 1983 to be added to the \$1 million being sought in FY 1982.

<u>Resource requirements:</u>	<u>1981</u>	<u>1982</u>	<u>1983</u> <u>Request</u>
Budget Authority (\$000)	3,650	5,500	4,500
Outlays (\$000)	3,000	4,000	3,000
	<u>1984</u>	<u>1985</u>	<u>1986</u>
Budget Authority (\$000)	7,500	7,500	7,500
Outlays (\$000)	4,500	4,000	3,000

Other information:

-- Program of grants for field research: The Smithsonian Foreign Currency Program makes grants to United States universities, museums, and other institutions of higher learning, including the Smithsonian itself, primarily for research and advanced professional training in fields of traditional Smithsonian competence. The Smithsonian program is a major source of support for research carried out by United States institutions in the excess foreign currency countries. It strengthens the research and training activities of collaborating institutions abroad, for most projects directly involve host country institutions and scholars. Enduring professional ties which result from such joint efforts and scholarly exchange contribute to the strongest form of United States cultural relations with other nations. Moreover, these ties contribute to the integration of the worldwide advancement of science which serves to narrow the gap between the industrial and the developing nations.

-- Forward-funded reserve for the American Institute for Indian Studies: Founded in 1961 by a consortium of 15 United States universities and colleges, the purpose of the American Institute of Indian Studies (AIIS) is to promote American scholarship at the pre- and post-doctoral levels on India in all recognized fields of the humanities and the social and natural sciences. Funding for the United States administration is raised through dues paid by member institutions and from foundation grants from several sources. As of 1980, the number of consortium members has grown to 34 institutions with about 100 fellows in India at any given time in a variety of programs. Funding for research and local administration in India is primarily through the Smithsonian, with lesser amounts being contributed by the Department of Education (language teaching programs only), National Science Foundation (fellowships in specific disciplines), International Communications Agency (fellowships), and the Ford Foundation.

Through its competitive grants program, the Smithsonian has provided annual funding to the AIIS for fellowships, research, symposia, publications, and administrative costs. The Smithsonian has helped sustain this Institute and other American research centers abroad for more than a decade because of their significant contributions to scholarship and science without regard for national boundaries and their special service to American scholars conducting research.

While the amount of Indian currency available to the United States government is still large, it is a finite fund in inactive accounts. With inflation rates in India at a high level, it will probably disappear more quickly than has been anticipated. Various estimates are offered for when this may occur; some suggest as early as five years hence. Since the end of "excess" currency status historically has happened suddenly, the Institution proposes to reserve funds for the AIIS to avoid a situation similar to the one which developed in Egypt, where activities were quickly curtailed and insufficient lead time has not allowed the identification of replacement funds.

By building a substantial foreign currency reserve fund now, the Smithsonian hopes to assure that AIIS will be financially secure on a long-term basis, and to encourage other such centers to make the effort necessary to develop funding from other sources for the period beyond that of support by the Smithsonian.

-- International effort to salvage Moenjodaro: In 1921, two important discoveries were made in the Indus Valley of India, now Pakistan, when archeologists discovered the remains of the cities of Harappa, near Lahore, and Moenjodaro, about 250 miles north of Karachi. These two cities apparently are the products of the Harappan civilization which flourished over 4,500 years ago, from about 3000 B.C. to 1500 B.C. Moenjodaro, a city of one square mile, is the larger and more impressive of the two sites. From the standpoint of planning, sanitation and social organization, this city anticipated developments which only blossomed several thousand years later. Since its discovery, the excavated ruins at Moenjodaro have been threatened by two main causes of destruction. Floods of the Indus River and highly saline ground waters have caused the serious deterioration of the excavated remains.

Since the 1960s, the Government of Pakistan has appealed to the international community for assistance in salvaging Moenjodaro by diverting the river, lowering the water table, providing remedial action to stabilize threatened buildings and preventing disintegration of those that have not yet been seriously damaged, and installing appropriate landscaping. UNESCO responded to Pakistan's appeal and, in 1974, agreed to lead an international fund raising campaign. In the interim, the Government of Pakistan, with assistance of UNESCO, has conducted a series of technical studies relating to river control, dewatering and other methods conducive to the eventual preservation of the site.

On October 10, 1979, an agreement between UNESCO and the Government of Pakistan for the preservation and development of the monumental site of Moenjodaro was signed. Following this, an Executive Committee of the Campaign was set up to advise the Director-General of UNESCO on all aspects of the project. The Committee has held several meetings during which various aspects of the plans were reviewed. Bid documents are being prepared for water pumps for river control. Subsequent stages will include consolidation and treatment of remaining structures and planting the area with salt resistant plants to consolidate the soil and to provide suitable protection from wind driven sands. To date, UNESCO has raised approximately \$1.3 million, mainly from governmental contributions of member states. The funds raised thus far have been deposited in an international trust fund for

Moenjodaro. Considering that the total budget for the project is now estimated at more than \$13 million, the Committee is seeking new or additional contributions. The Smithsonian is optimistic that this project, long in the planning stage, will get underway shortly and accordingly the Institution plans to seek a total of \$4 million equivalent in nonconvertible Pakistani currency over a four year period beginning in FY 1982 as the United States contribution toward this project.

As with the Nubian monuments of Egypt, preserving the remains of Moenjodaro will be of great benefit to generations of future scholars. The network of scholarly relations between American institutions and their counterparts in Pakistan will be developed and strengthened. Indeed, the maintenance of cultural ties between nations can provide a link which endures through the shifting of other relations and insures continued contact between nations. Finally, support by the United States for the preservation of this unique historic site is in the spirit of the UNESCO convention concerning the protection of the world culture and natural heritage (the World Heritage Convention) which was ratified by the United States in 1973.

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